



Drug-related deaths in the UK

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***national programme on Substance
Abuse Deaths
(np-SAD)***

**Drug-related deaths reported by Coroners in
England, Wales, Guernsey, Jersey and the Isle of
Man; Police forces in Scotland; & the General
Register Office for Northern Ireland**

**Annual Report January-December 2005
and 17th Surveillance Report July-December 2005**

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John Corkery
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Fabrizio Schifano
Thomy Tonia
Jan Annan**

Preface

The Annual Report of drug-related deaths in the United Kingdom and the six-monthly surveillance report published by the *national programme* on Substance Abuse Deaths (np-SAD) is used as an indicator of the extent and nature of drug problems and misuse, and makes a contribution towards the prevention of substance abuse problems.

The Programme could not achieve its goals and objectives without the collaboration and co-operation of coroners and their officers. It is important to recognise that their collaboration has been on a voluntary basis and it is the fundamental reason for its success. We would like to thank them all for their active participation.

I am particularly pleased to report on continuing participation with coroners in Northern Ireland, Guernsey, Jersey and the Isle of Man, as well as with the procurator fiscal for Dumbarton in Scotland. This year we are also grateful to the Scottish Crime and Drug Enforcement Agency for providing information on drug-related deaths reported to the police in Scotland, and to the General Register Office for Northern Ireland for information on drug-related poisonings from their General Mortality Register. Their contributions are precious as we aim to maintain a UK-wide reporting system.

The findings indicate a decrease in drug-related deaths during 2005 in the United Kingdom as a whole, following the increase in 2004. Whilst this is good news, further vigilance and constant monitoring of the drug-related fatalities situation is essential.

As in previous years, the data and analysis in this report is intended to inform authorities at the local, regional and national levels, as well as health professionals and the general public, about the serious consequences of drug abuse. The report provides also a number of indicators of drug abuse patterns, trends and early warnings on emerging drug problems so that appropriate and timely action can be taken.

We would like to thank the Department of Health for their support for this very important research programme.

Professor A. Hamid Ghodse
Director
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Acknowledgements

We are grateful to the coroners listed below, their deputies, officers and assistants, for providing the information in this report. We apologise if we have inadvertently omitted anyone. This list may differ from the list of jurisdictions given in Appendix 1 due to the fact that many jurisdictions are being merged as coroners retire, and in anticipation of the forthcoming re-structuring of the Coroners' Service in England and Wales. We wish all those who have recently retired all the best for the future, and thank them for supporting the surveillance work of the np-SAD. We are also indebted to the Scottish Crime and Drug Enforcement Agency and the General Register Office for Northern Ireland for the provision of data relating to their respective countries. Thank you also to Francesca Padovan for her assistance with data entry.

J R H Adeley, Preston & West Lancashire
 R J Allen, Wolverhampton
 W J Armstrong, Norwich & Central Norfolk
 I Arrow, Torbay & South Devon
 P G Ashworth, Derby & South Derbyshire
 R D Atkinson, West Lincolnshire
 S Atkinson, North Lincolnshire & Grimsby
 R Balmain, Black Country
 C M Beasley-Murray, Essex & Thurrock
 P J Bedford, Berkshire
 D T Bowen, Gwent
 A M Bradley, Hampshire – North East
 P L Brunton, Cardiganshire, Ceredigion
 M J C Burgess, Surrey, the Queen's Household
 E T Carlyon, Cornwall
 T Carney, Gateshead & South Tyneside
 N D Chapman, Nottinghamshire
 M F Coker, Warwickshire
 R H G Corner, Milton Keynes
 A K Cotter, Birmingham and Solihull
 W D F Coverdale, City of York
 A R Craze, East Sussex
 A C Crickmore, Cheltenham
 P de Gruchy, Jersey
 P J Dean, Southend & South East Essex, Greater Suffolk
 W F G Dolman, Northern London
 C C Donnelly, Argyll & Clyde at Dumbarton
 C W M Donnelly, Hartlepool
 C P Dorries, South Yorkshire – Western
 E A Earland, Exeter and Greater Devon
 J P Ellery, Mid & North West Shropshire
 G L Fell, North Yorkshire – Western
 J R Finch, Guernsey
 S P G Fisher, Louth & Spilsby
 P E A Forrest, Avon
 N G Gardiner, Oxfordshire
 L N Gorodkin, Greater Manchester - Central
 M T Gwynne, Wrekin
 A A Haigh, S Staffordshire
 D Halpern, Herefordshire
 V Hamilton-Deeley, Brighton & Hove
 M Hassell, Cardiff & Vale of Glamorgan
 D Hinchliff, West Yorkshire – Eastern
 A V Hind, Blackpool & the Fylde
 E S Hooper, South Yorkshire – Eastern

D C Horsley, Portsmouth & South East Hampshire
 M S Howells, Pembrokeshire
 R A Hulett, Buckinghamshire
 G W A Jackson, Manchester – Central
 C W Johnson, Wirral
 M C Johnston, West Dorset
 T Kelly, Scarsdale (including High Peak)
 T Kirkman, Rutland & North Leicestershire
 P A Knapman, London - Inner West
 W R Knowles, Kings Lynn & West Norfolk
 J Leeming, Greater Manchester - West
 A G Leguen de Lacroix, Lowestoft
 A L Maddrell, Cheltenham
 D C Masters, Wiltshire & Swindon
 J A Matthews, Isle of Wight
 P Matthews, City of London
 I G McCreath, North Northumberland
 N Meadows, isles of Scilly
 D Mitford, Newcastle upon Tyne
 D S Morris, Bedfordshire & Luton, South & West Cambridgeshire
 W R Morris, North & East Cambridgeshire
 I H Morton, North East Cumbria
 T M Moyle, Isle of Man
 S Nelson, Greater Manchester - North
 M D Oakley, North Yorkshire - Eastern
 D I Osborne, North east Cumbria
 D J Osborne, Neath & Port Talbot
 W J Owen, Carmarthenshire
 R N Palmer, Southern London
 S Payne, Bournemouth, Poole & East Dorset
 A Pember, Northamptonshire
 J S Pollard, Greater Manchester - South
 D Pritchard-Jones, North West Wales
 A J A Rebello, Liverpool
 H R Redman, Central & South East Kent
 A S Reid, London - Inner North

N L Rheinberg, Cheshire, Halton & Warrington	J C Taylor, Western Cumbria
M R Rose, West Somerset	M Taylor, Boston & Spalding
V F Round, Worcestershire	R G Taylor, East Lancashire
G S Ryall, Peterborough, Stamford	E G Thomas, Hertfordshire
J C Sampson, London - Inner South	A M Thompson, Western London
D R Sarginson, Coventry	A Tweddle, Northern District of
G M Saul, East Riding & Hull	Darlington & South Durham, North
M J F Sheffield, Teesside	Durham
G A Short, Hampshire Central	P M Walters, Bridgend & Glamorgan
A F T Sibcy, South Shropshire	Valleys
M J H Singleton, Blackburn, Hyndburn & Ribble	R L I Whittaker, West Yorkshire -
Valley	Western
I Smith, South Cumbria & Furness	G U Williams, Powys
I S Smith, Stoke on Trent & North Staffordshire	T Williams, East Somerset
E Stearns, Eastern London	D Winter, Sunderland
R J Stone, West Sussex	K S Wiseman, Southampton & New
C K Sumner, Knowsley, St Helens & Sefton	Forest
R J Sykes, Mid Kent & Medway	

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Key points

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- ◆ Notifications of 1,382 drug-related deaths occurring in 2005 were received by the Programme. A total of 109 coroners from 120 jurisdictions in England & Wales, as well as from the Channel Islands and Isle of Man, together with one Procurator Fiscal from Scotland, submitted information. The total number of drug-related deaths (DRDs) reported in 2005 indicates a decrease of about 6% over the number reported for 2004 (1,472) in the previous Annual Report.
- ◆ When the figures derived from information provided by the Scottish Crime and Drug Enforcement Agency and the General Register Office for Northern Ireland are included, the total number of drug-related deaths (DRDs) reported in 2005 for the UK is 1,644. This represents a decrease of about 10% over the number recorded by the same sources for 2004 (1,820).
- ◆ The demographic profile deaths reported to the np-SAD remains consistent with previous reports. The majority of cases were males (74%) and under the age of 45 years (73%), and White (95%).
- ◆ The principal underlying cause(s) of death were: accidental poisoning (59%); intentional self-poisoning (16%); and poisoning of undetermined intent (14%).
- ◆ Opiates/opioids (i.e. heroin/morphine; methadone; other opiates/opioid analgesics), alone or in combination with other drugs, accounted for the majority (70%) of fatalities.
- ◆ Heroin/morphine alone or in combination with other drugs, accounted for the highest proportion (48%) of fatalities, a slight increase over the 2004 level of 47%.
- ◆ The highest rates of DRDs per 100,000 population aged 16 and over in 2005 were in Brighton & Hove (24.2); Dumbarton (13.4); Blackpool & the Fylde (12.8); Isle of Man (11.3); East Lancashire (10.0); Liverpool (9.4); Exeter & Greater Devon (8.8); Southampton & New Forest (8.7); and Neath Port Talbot (8.2). Of these nine areas, only the Isle of Man showed a significant increase over 2004 (up from 1.6).
- ◆ The following jurisdictions reported significantly lower rates per 100,000 population aged 16 and over than in the previous year: Jersey (-67%); and Liverpool (-40%).
- ◆ The following jurisdictions reported significantly higher rates per 100,000 population aged 16 & over than in the previous year: Ceredigion (+766%); Torbay & South Devon (+571%); Cheltenham (+226%); Cardiff & Vale of Glamorgan (+204%); Black Country (+100%); and Surrey (+72%).
- ◆ The following perceptible changes were also observed:
 - An increase in the number of cases involving cannabis from 21 to 35
 - An increase in the number of cases involving amphetamines from 22 to 40
 - An increase in the number of cases involving ecstasy-type drugs from 38 to 45
 - An increase in the number of cases involving cocaine from 152 to 171
 - The proportion of cases involving cocaine increased from 10% to 13%
 - A decrease of about 1.4 percentage points in the proportion of cases involving hypnotics/sedatives

I Introduction

This report is the seventh in the series of annual reports (Ghodse *et al*, 2000, 2001, 2002, 2003, 2004, 2005) published by the national programme on Substance Abuse Deaths (np-SAD).

The first part of the report takes the form of an annual review of information (including nil returns) received from coroners in England & Wales, Northern Ireland, the Isle of Man and Channel Islands, as well as the procurator fiscal for Dumbarton, the Scottish Crime and Drug Enforcement Agency (SCDEA), and the General Register Office for Northern Ireland (GRONI) on drug-related deaths that actually occurred in 2005. Information on 1,640 deaths in the UK during this period was received. A total of 109 out of 120 (91%) jurisdictions in England & Wales, as well as coroners in Guernsey, Jersey and Isle of Man, and one Procurator Fiscal in Scotland, together with the SCDEA and GRONI, contributed data for this part of report. Since there are differences in legal and coronial systems, data collection methods, and database structures, it is only possible to examine some aspects of drug-related deaths at a UK level. The first part then goes on to examine in full those deaths reported to the np-SAD using their data collection forms. Since the time lapse between the date of death and the conclusion of inquest varies considerably from case to case, there will undoubtedly be further deaths in 2005 that are not covered by this report, and from additional coroners. However, these cases will be analysed in future reports. Information is presented separately for deaths in Scotland (Annex AR4) and Northern Ireland (Annex AR5).

The second part of the report relates to the surveillance period July to December 2005, which has not been published previously. These figures reflect inquests on drug-related deaths reported to np-SAD during that period and may include deaths that actually occurred outside that period. A further 270 inquest reports were received after publication of the sixth Annual Report (2005) on deaths that occurred during 2004 (Ghodse *et al*, 2005). These cases are also briefly analysed. In order to provide continuity with previous np-SAD surveillance reports, changes in the semi-

annual death rates since January 2003 are also highlighted (see Annex AR3).

There are two main types of source in the UK for regular information on 'acute' drug-related deaths (DRDs): three General Mortality Registers (GMRs) and one Special Mortality Register (the np-SAD). The GMRs are the General Register Offices for England & Wales, Scotland, and Northern Ireland. Essentially, the mortality data recorded by these Offices are derived from medical death certificates. In England, Wales and Scotland some supplementary information is provided. No detailed information is passed to them on toxicology, e.g. levels of drugs and/or alcohol found in body tissues, blood or urine. Post mortem reports are not provided to the GMRs. Special drug poisoning databases have been established by the GMR for England & Wales and the GMR for Scotland. These government agencies publish annual statistics on DRDs. The GMR in Northern Ireland does not currently publish information on such cases.

In England, the Department of Health (DH) has lead responsibility for the Government's Action Plan to reduce drug-related deaths. Since publication of the Action Plan, efforts have been focussed on improving the surveillance and monitoring of drug misuse; improving prescribing treatment; and guidance to drug users and treatment providers on limiting the risks of overdose. The information and guidance for health professionals, service providers and users can be accessed on the National Treatment Agency for Substance Misuse (NTA) website. This can be found at http://www.nta.nhs.uk/publications/reducing_deaths.

In Scotland, the Scottish Executive has responsibility for drug issues. They published an action plan on drug-related deaths in December 2005 (Scottish Executive, 2005). It can be accessed on <http://www.scotland.gov.uk/Resource/Doc/47121/0020632.pdf>. The Executive has established a National Forum on Drug-related Deaths in Scotland, which held its first meeting in May 2006.

In Wales, the Community Safety Division within the Welsh Assembly Government has responsibility for implementing the Assembly's 8 year substance misuse strategy, *Tackling Substance Misuse in Wales: A Partnership Approach*, launched in April 2000.

In Northern Ireland a combined strategy – *New Strategic Direction for Alcohol and Drugs 2006-2011* – was launched on 8 May 2006 (DHSSPS, 2006). It can be viewed at: <http://www.dhsspsni.gov.uk/nsdad-finalversion-may06.pdf>. In order to measure the extent to which the overall aim of reducing alcohol and drug-related harm has been met, it is proposed to establish a set of indicators that can be used for this purpose, including drug-related deaths. Work is ongoing to identify/agree the sources of information on drug-related deaths and to secure the supply of the relevant information for inclusion in the annual publication.

Recent studies on mortality in drug addicts

In recent years there have been interesting developments in the UK, as well as internationally, highlighting the increased need for surveillance of drug-related deaths in particular and drug-related mortality in general. In addition, several recent studies on mortality in drug addicts have provided examples on how these studies may play a role in informing treatment provision. These are outlined as follows.

International studies

Shields *et al* (2006) analysed 2,864 cases classified as suicide upon autopsy and toxicological examinations between 1993 and 2002 in the Kentucky Division of Medical Examiner's Services. Analysis of the data indicated that 3 times as many women had taken anti-depressants and more than twice as many had consumed opioids. Drug toxicity ("overdose") ranked as the third (9.9%) leading cause of suicide. Women succumbed to drug toxicity more than men (27.5% versus 5.9%). Of the overdose deaths, 66.5% had a negative blood alcohol concentration (BAC), while anti-depressants, opioids, and benzodiazepines were detected in blood in

54.4%, 37.4%, and 29.2% of the subjects, respectively.

Chan *et al* (2006) hypothesized that the presence of methadone and a tricyclic anti-depressant (TCA) or a benzodiazepine (BZD), or both was associated with an 'accidental' overdose (AOD) death more often than a death from any other cause. A retrospective chart review of New York City Office of Chief Medical Examiner data for 2003 was performed. In 2003, there were 5,817 medical examiner cases, of which 500 (8.6%) were methadone positive. Of the methadone-positive cases, 493 were available for analysis; 95 (19.3%) were TCA positive and 158 (32.0%) were BZD positive. They concluded that, among the methadone-positive cases, testing positive for a TCA, a BZD, or both was associated with an AOD death.

Mueller *et al* (2006) analyzed a total of 1,906 unintentional drug overdose deaths occurring in 1994 to 2003 in New Mexico. The rate of unintentional prescription drug overdose death increased by 179% (1.9 to 5.3/100,000) from 1994 to 2003. Of all deaths caused by prescription drug(s) (n=765), 590 (77.1%) were caused by opioid painkillers, 263 (34.4%) by tranquillisers, and 196 (25.6%) by antidepressants.

Trend analysis of drug poisoning deaths using underlying cause of death and multiple causes of death mortality data from the Centers for Disease Control and Prevention and opioid analgesic sales data from the US Drug Enforcement Administration has recently been published by Paulozzi *et al* (2006). This shows that unintentional drug poisoning mortality rates in the USA increased on average 5.3% per year from 1979 to 1990 and 18.1% per year from 1990 to 2002. The authors suggested that the rapid increase during the 1990s reflects the rising number of deaths attributed to narcotics and unspecified drugs. Between 1999 and 2002, the number of opioid analgesic poisonings on death certificates increased 91.2%, while heroin and cocaine poisonings increased 12.4% and 22.8%, respectively. By 2002, opioid analgesic poisoning was listed in 5528 deaths - more than either heroin or cocaine. The increase in deaths involving methadone tracked the increase in methadone used as an analgesic rather than methadone used in narcotics treatment programmes.

The Australian Bureau of Statistics published a bulletin on accidental opioid induced deaths in those aged 15 to 54 years (Degenhardt *et al*, 2006a). The data presented referred to deaths among those aged 15 to 54 years in 2004. There were a total of 357 deaths attributed to opioids in 2004; the rate of accidental deaths due to opioids in Australia was 31.3 per million persons aged 15 to 54 years (effectively unchanged compared to 2003). Males comprised just over three quarters (78%) of the deaths among this age group. Ten-year breakdowns of deaths attributed to opioids in 2004 showed that the largest proportion of deaths continued to be among the 25-34 year age group (43%), followed by the 35-44 age group (28%).

Jauncey *et al* (2005) used Australian Bureau of Statistics (ABS) mortality data to illustrate how choice of classification codes used to record cause of death can impact on the statistics reported for national surveillance of opioid deaths. Using International Classification of Diseases version 10 (ICD-10) codes from ABS mortality data 1997-2002, they examined all deaths where opioids were reported as a contributing or underlying cause. For the 6-year period there were a total of 5,839 deaths where opioids were reported. Three possible surveillance definitions of accidental opioid-related deaths were examined, and compared to the total number of deaths where opioids were reported for each year. Age restrictions, often placed on surveillance definitions, were also examined. As expected, the number of deaths was higher with the more inclusive definitions. Trends in deaths were found to be similar regardless of the definition used; however, a comparison between Australian states revealed up to a two-fold difference in the absolute numbers of accidental opioid-related deaths, depending on the definition. These findings underline the need for any interpretation of reported numbers of drug-related deaths to state any limitations of the data, and to describe the implications of the definitions employed.

European studies

Steentoft *et al* (2005) included medico-legally examined fatal poisonings among drug addicts in the five Nordic countries: Denmark, Finland, Iceland, Norway and Sweden. The most fatal overdoses were

seen in Norway, in both the death rate (number per 100,000 inhabitants = 8.44) and in absolute number ($n = 232$). The comparable figures for the other four countries were Denmark 5.43 ($n = 175$), Iceland 3.6 ($n = 6$), Finland 2.93 ($n = 94$) and Sweden 2.56 ($n = 136$). In earlier studies from 1991 and 1997, the highest death rate was seen in Denmark, with Norway as number two. Denmark was the only country where the death rate decreases from 1997 to 2002. Heroin/morphine was the single most frequently encountered main intoxicant, varying from 10% of the cases in Finland to 72% of the cases in Norway. Finland differed from the other countries in that a high percentage of the fatal overdoses in Finland were not caused by an illicit drug; buprenorphine overdoses were seen, and relatively few deaths resulting from heroin were seen. Methadone was the main intoxicant in 41% of the Danish overdose cases, 15% of the Norwegian cases, 4% of the Swedish cases and none of the Finnish overdose cases.

Knudsen *et al* (2005) commented on acute poisoning with GHB (Gamma-hydroxybutyrate). During 2004 the number of GHB-abuse related deaths in western Sweden was seven, approximately the same figures as for heroin. Two other substances which are transformed to GHB in the human body, GBL (gamma-butyrolactone) and 1, 4-butanediol, have during the last years presented themselves among the same users as for GHB. Since GBL and butanediol are not classified as illicit drugs the possibilities for the police force to intervene and capture the drugs are severely restricted.

Some recent studies have suggested a lower risk of fatal intoxications in drug-dependent patients under buprenorphine compared to methadone treatment. Soyka *et al* (2006) studied the proportion of patients under methadone and buprenorphine substitution among drug-related deaths the Munich region in Germany. The researchers found their data indicated that in 96 (35%) of all 272 so-called drug deaths, methadone was involved compared to a single case of buprenorphine, possibly indicating a relatively better risk profile of buprenorphine.

Abuse of amphetamine (AMP) and its derivatives, such as Ecstasy (MDMA, MDEA, MDE and MDA) is an important public issue. De Letter *et al* (2006) examined all the medico-legal files between January 1976 and December 2004 at the Department of Forensic Medicine at Ghent University in Belgium. Amphetamines were involved in 34 fatalities, and the majority were men, under the age of 25 years. A wide range of blood levels was found: e.g. MDMA blood concentrations in cases of 'pure' intoxication were found between 0.27 and 13.51 microg/ml. In the study group, 'pure' intoxications with amphetamines, polydrug overdoses, and the combination of amphetamines use and polytrauma were the most prominent causes of death. Acute to sub-acute cardiopulmonary failure was the most frequent mechanism of death, followed by (poly)trauma, mechanical asphyxia, and hyperthermia, respectively.

The 2005 annual report for 2005 of the Netherlands Focal Point to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) notes that the rising trend in cocaine-related deaths evident from 1997 to 2002 did not continue into 2003 and 2004 (van Laar *et al*, 2006). Most cocaine-related deaths occur amongst those aged 25 to 49 years, with a peak in the 35-39 age group. On average, between 2000 and 2004 eight of ten cocaine-related deaths involved males.

Appellaniz and Manzanaro (2005) aimed at ascertaining the trend in the acute drug-related death rate in the Autonomous Basque Community in Spain. They found that acute drug-related deaths numbering 1,207 in all were recorded during the period under study, totalling 0.45% of all deaths, for a gross rate of 3.58 deaths/100,000 inhabitants. The mean Potential Years of Life Lost were 2,226.33/year, for a rate of 1.12/1000.

Colak *et al* (2006) collected data on all deaths from drugs in Turkey between 1997 and 2001. In this period, 374 deaths from drugs were reported in Turkey, with a mortality rate of 0.17 per 100,000 population. Highest mortality rates were found in Istanbul (0.83) and Gaziantep (0.71). Opiates were implicated in 91.5% of deaths and benzodiazepines in 25.9%. Two fifths (38.8%) of the cases involved the use of more than 1 drug. In 36.6% of cases, the route of final drug administration was by

injection.

The Health Research Board in Ireland has published an update on direct drug-related deaths in that country (Long *et al*, 2006). The article looks at the number of direct-drug-related deaths (overdoses) between 1980 and 2003, based on unpublished data from the Central Statistics Office (CSO) in Dublin. There were few deaths in the eighties. Between 1990 and 1994, there was a small but steady increase in the number of drug-related deaths, and between 1995 and 1999 a substantial increase. This was followed by a considerable decline in the number of deaths between 2000 and 2002. In 2003, the number of drug-related deaths increased marginally when compared to 2001 and 2002. Between 2001 and 2003, 60% of direct drug-related deaths were opiate-related. According to data from the General Mortality Register, almost all direct drug-related deaths between 1980 and 1994 occurred in Dublin. Between 1995 and 1999, there was a substantial increase in drug-related deaths in Dublin, from 33 to 96; and there was a steady increase in drug-related deaths outside the Dublin area, from 3 to 26. Between 2000 and 2003, there was a sharp decline in direct drug-related deaths in Dublin, from 83 in 2000 to 46 in 2003. This possibly reflects the decrease in new opiate users, the increase in methadone treatment places, the reduction in average waiting times for methadone treatment and the provision of methadone treatment in Dublin prisons.

The findings of the various international studies above are not dissimilar to those reported in np-SAD's annual reviews. These studies provide evidence that should assist in guiding the development of meaningful and sustainable prevention programmes across Europe and beyond.

UK studies

Oyefeso *et al* (2006) described the nature, extent and pattern of fatal injuries while under the influence (FIUI) of psychoactive drugs. Their observational study covered the period January 1999 to December 2001. A total of 3,803 drug-related deaths of persons aged 16-64 years were reported by the study panel during the three-year period. The study panel accounted for 86% of drug-related deaths in England in this period. There were 147 FIUI cases (119

males, 28 females), giving a proportionate mortality ratio of approximately 4%. The majority of FIUI cases (84%) were aged 16-44 years, with a median age at death of 33 years (Quartile deviation = 7). Fifty-six percent of FIUI occurred in urban areas of England. The population of the study jurisdictions aged 16-64 years contributed 49,545,766 person-years (py) to the study, giving an annual crude rate of 3/1,000,000 person-years (py). Rates for male and females were 4.9 and 1.1/1,000,000 py respectively, giving a male/female rate ratio of 4.5 (95%CI = 2.9-6.8). The rates of intentional and unintentional FIUI were 2 and 1/1,000,000 py respectively. The leading mechanism for intentional FIUI was suffocation while the predominant mechanisms in unintentional FIUI were road traffic accidents and falls. Risks of intentional FIUI were elevated among Black and Minority Ethnic groups.

Schifano and Corkery (2006) used a number of UK key indicators for cocaine/crack (i.e. number of mentions on death certificates; last year use of cocaine; treatment demand, number of drug offenders; seizures, prices and average purity levels) for their descriptive and correlational study of the period 1990-2004. A total of 1,022 cocaine death mentions were identified in the chosen time frame, with cocaine/crack cocaine being the sole drug mentioned in 36% of cases. The number of cocaine/crack cocaine fatalities showed a year-on-year increase and correlated positively with the following cocaine (powder) figures: last year use; number of offenders, and number of seizures, but correlated negatively with price. Furthermore, number of cocaine/crack cocaine death mentions correlated positively with number of crack offenders and seizures, but correlated negatively with both crack purity and price over time. They concluded that decreases in cocaine/crack cocaine prices may have facilitated an increase in consumption levels and this, in turn, may have determined an increase in number of cocaine/crack cocaine-related fatalities.

Furthermore, Schifano *et al* (2006) used the same range of key indicators for their study of ecstasy in the UK between 1994 and 2003. A total of 394 ecstasy deaths mentions were identified from the UK; in 42% of cases ecstasy was the sole drug mentioned. Overall, number of fatalities showed a year-per-year increase and positively correlated with: prevalence of last

year's use; number of offenders, and number of seizures but negatively correlated with ecstasy price. Price negatively correlated with: prevalence of last year's use and number of seizures; but positively correlated with average MDMA dosage per tablet. They concluded that increasing production with a concomitant decrease in ecstasy price may have facilitated an increase in consumption levels and this, in turn, may have determined an increase in number of ecstasy deaths mentions.

Investigating and researching drug-related mortality

Injecting drug use (IDU) and associated mortality appear to be increasing in many parts of the world. IDU is an important factor in HIV transmission. In estimating AIDS mortality attributable to IDU, it is important to take account of premature mortality rates from other causes to ensure that AIDS related mortality among injecting drug users (IDUs) is not overestimated. A review was undertaken by Degenhardt *et al* (2006b) to provide estimates of the excess non-AIDS mortality among IDUs. Searches were conducted with Medline, PsycINFO, and the Web of Science. The authors also searched reference lists of identified papers and an earlier literature review by English *et al* (1995). Crude mortality rates (CMRs) were derived from data on the number of deaths, period of follow up, and number of participants. In estimating the all-cause mortality, two rates were calculated: one that included all cohort studies identified in the search, and one that only included studies that reported on AIDS deaths in their cohort. This provided lower and upper mortality rates, respectively. The researchers were able to derive weighted mortality rates based upon cohort studies that included 179,885 participants, 1,219,422 person-years of observation, and 16,593 deaths. The weighted crude AIDS mortality rate from studies that reported AIDS deaths was approximately 0.78% per annum. The median estimated non-AIDS mortality rate was 1.08% per annum. Degenhardt *et al* (2006b) conclude that illicit drug users have a greatly increased risk of premature death and mortality due to AIDS forms a significant part of that increased risk; it is, however, only part of that risk. They argue that future work needs to examine mortality rates among IDUs in developing countries, and collect data on

the relation between HIV and increased mortality due to all causes among this group.

Overall mortality related to HIV infection has declined with the advent of highly active anti-retroviral therapy (HAART). Fingerhoo *et al* (2006) examined the five-year outcomes of a cohort of 175 consecutive patients with HIV infection and injection drug use followed at a primary care practice. Patients were seen for their first visit between June 1994 and May 1998. At five years from their initial visit, 53 patients (30.3%) had died, while 47 (26.9%) were still active patients in the primary care

practice. Of those who died, HIV was the cause of death in a little over half of patients (55%) followed by liver disease (15%) and drug overdose (11%). Only 80 patients ever received highly active anti-retroviral therapy (HAART) and 52 (65%) of these achieved an undetectable viral load. Patients who never received HAART had a five-year mortality of 34.8%, compared to 25.0% in patients who ever received HAART. The researchers conclude that their data underscore the high burden of morbidity and mortality associated with HIV infection among IDUs despite the availability of effective treatment.

II The *national programme* on Substance Abuse Deaths (np-SAD)

Aims and objectives

The Programme's principal aim is to reduce and prevent drug-related deaths in the UK due to the misuse of drugs, both licit and illicit, by collecting, analysing and disseminating information on the extent and nature of death. The Programme offers a comprehensive prevention package to Drug (and Alcohol) Action Teams (D(A)ATs), Primary Care Trusts (PCTs) and Strategic Health Authorities (SHAs) with a mission to tackle the problem of drug-related deaths.

The Programme's objectives are to:

- Collect and collate drug-related mortality data
- Develop and maintain a computerised surveillance system
- Identify substances implicated in drug-related deaths – including new drugs and new combinations
- Monitor and examine patterns and trends, e.g. geographic, demographic, substances implicated in death, method of death
- Act as an early warning system for new trends in mortality and drug misuse
- Use data as an indicator to estimate the prevalence of substance-related problems and assess the hazards associated with substance abuse
- Collaborate with relevant agencies in research on substance-related mortality locally, nationally and internationally

- Inform and facilitate discussion on the prevention of drug-related deaths, whether accidental or intentional
- Provide data for local and national drug abuse policy formulation and programme planning
- Disseminate information on drug-related mortality to the scientific community, clinicians, policy makers and other interested parties

Administration

The *national programme* on Substance Abuse Deaths (np-SAD) is managed within the overall structure of the International Centre for Drug Policy within the Division of Mental Health, St. George's, University of London.

Programme staff

Professor Hamid Ghodse - Programme Director
 Mr John Corkery (Senior Research Fellow) - Programme Manager
 Dr Adenekan Oyefeso (Reader) – Principal Researcher
 Professor Fabrizio Schifano – Principal Researcher
 Ms Thomy Tonia - np-SAD Researcher
 Ms Jan Annan - Associate Director, International Centre for Drug Policy

np-SAD databases

The np-SAD manages three principal databases – the Dead Addicts Database, the Coroners Drug-Related Deaths Database and the national UK Addicts Index.

The Dead Addicts Database was established in 1978 and contains data on characteristics of dead, previously notified addicts since 1967. It is updated via information collected from the Home Office and other sources and cross-checked with the national UK Addicts Index. In May 1997, this latter Index was closed. In recognition of the rich research resource this database provided, the electronic database of the Index was transferred to the Centre for Addiction Studies in the Department of Addictive Behaviour, which has taken formal custody of the data for research purposes.

The Coroners Drug-Related Deaths Database was established in conjunction with the Home Office, who lead on the UK Government's drug strategy, following the closure of the national UK Addicts Index. The purpose of the database is to provide information for the management of a national surveillance system to monitor drug-related deaths reported by coroners and procurators fiscal. Data are sent to the np-SAD on a standard reporting form (see below).

Surveillance data management

Data collection

All coroners in the UK (see Appendix 1) are issued with copies of the standard data collection form (see Appendix 2). They are invited to complete the forms on all deaths that meet the criteria described in this report and return them to the np-SAD office at St. George's, University of London for coding and entry onto the database.

Data submission is mostly directly on paper by coroners or their staff. There is also manual completion of the np-SAD data collection form or print-out of completed computer-generated forms using bespoke software. Forms are submitted when inquests are complete – either singly or in batches. Manual extraction of data by team members is undertaken at some coroners' courts – mostly in London.

Data entry and coding

A great deal of consideration was given to the area of data coding to ensure that comparison with other databases was possible and that the final analyses would be useful to readers. For example, all cases were coded for area of residence of the deceased. Causes of death (immediate and underlying) are re-coded according to ICD-10. All drugs (i.e. those implicated in the death) are coded separately according to therapeutic drug category (i.e. hypnotics/sedatives, anti-depressants, opiates, etc).

Statistical analysis

Due to the nature of the information collected by the programme, i.e. drug-related deaths as reported by the coroners, this is an observational study. Hence, statistical methods employed are based on proportions and ratios. Where the data include proportions of incidence for particular groups of interest, the ratio of the proportions forms a measure of the relative risk in one group compared with that of another. These scales of measurement are generally known as point estimates. Although point estimates can be calculated they do not represent the 'true' values. Each point estimate is subject to random variation. Confidence intervals (CI) provide an indication of the range in the true values for the population as a whole, which would be expected in future investigations. The methods used for quantitative data relied mainly on complex assumptions of distributional form. It may be the case that the assumptions are not always satisfied. In such cases, methods known as distribution-free methods can be applied, also known as non-parametric tests (e.g. Mann-Whitney). The data were analysed using SPSS™ for Windows version 12.

Data storage

The anonymised data-set for coroners is held on a SPSS database for analysis. All data held, whether electronic or paper, is stored securely and treated as confidential. Access is restricted to Programme staff; only aggregated and anonymised data are released to third parties.

What is an np-SAD case?

An np-SAD case is defined as a relevant death where any of the following criteria are met at a completed inquest, fatal accident inquiry or similar investigation:

- One or more psychoactive substances* directly** implicated in death;
- History of dependence or abuse of psychoactive drugs;
- Presence of Controlled Drugs*** at post mortem; or
- Cases of deaths directly due to drugs but with no inquest.

Deaths where solvents and other volatile substances are implicated alone are NOT included. Information on this is collected by the Department of Community Health Sciences at St. George's, University of London. Alcohol is included only when implicated in combination with other qualifying drugs.

* 'Psychoactive' substances are those having a direct effect on perception, mood, cognition, behaviour or motor function. Typically these include opiates and opioid analgesics, hypnotics, sedatives, anti-depressants, anti-epileptics, anti-psychotics, hallucinogens and stimulants such as amphetamines and cocaine.

** 'Directly implicated' means that drugs were considered by the coroner or other person investigating the death to have been instrumental in the coming about of the deceased's death (e.g. through poisoning or intoxication), or causing their powers of reasoning and/or perception to be so affected as to induce them to take risks which they would not have done had they been sober (e.g. thinking they could fly).

*** 'Controlled Drugs' are those drugs specifically classified by the Misuse of Drugs Act 1971 as amended by subsequent legislation. Controlled drugs include opioids, cocaine, amphetamines, cannabis, GHB, hallucinogens and most benzodiazepines.

Who is a drug abuser/dependent?

A drug abuser/dependent case is defined as one with a history of substance abuse where one or more of the following criteria are met:

- Reported as a known illicit drug user by the coroner, based on evidence obtained at inquest;
- Prescribed substitute medication for drug dependence;
- Presence of an illicit drug at post mortem, where not prescribed; or
- Presence of any additional information on the coroner's report suggestive of a history of drug abuse, and where such a history fulfils ICD-10 criteria: (F11-F16 and F19, using the 4-code subdivisions of .0 (acute intoxication), .1 (harmful use), and .2 (dependence syndrome).

Other activities and resources

The np-SAD team also conduct in-depth psychological autopsies on individual cases and carry out confidential inquiry exercises on request. The team also provides analysis of data for specific Drug and Alcohol Action Teams (DAATs), Primary Care Trusts (PCTs) and (Special Health Authorities) SHAs on request.

As a consequence of the work to date, information on the trends and patterns of death among UK drug misusers, including the impact of illicit and prescribed drugs, has been made available.

In addition to the above activities, the Programme

- Is the official custodian of the national UK Addicts Index Access database and paper files covering the period 1968-1997
- Holds a copy of the official Dead Addicts datafile
- Is located in an academic centre with input from relevant disciplines
- Brings to a broad range of expertise from different professional backgrounds – psychiatry, psychology, social science, pharmacology, epidemiology, addictive behavioural science, database, project management, etc.
- Has national and international experience, collaborating in research and training with bodies such as the World Health Organisation, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), and the European Collaborating Centres for Addiction Studies.

National Steering Group

The np-SAD has a National Steering Group to provide additional expertise to the Programme through involvement and

participation. Its principal role is in giving advice on the full range of its activities, including the national surveillance of coroners and production of 6-monthly and annual reports.

III Drug-related deaths in the United Kingdom

1. Demography

Notifications of 1,382 drug-related deaths occurring in 2005 were received by the np-SAD. Responses (including nil returns) were received from a total of 109 out of 120 coroners' jurisdictions in England and Wales. This is a coverage rate of about 91%. In addition, the coroners in Guernsey, Jersey and the Isle of Man contributed data analysed in this Annual Report, as well as one Procurator Fiscal in Scotland.

In addition, the SCDEA and the GRONI made available data reported to them for deaths in the period under examination. These deaths do not represent the full number of drug-related deaths in the UK since not all deaths are reported to the SCDEA (see next paragraph), and further inquests remain to be completed in England, Wales and Northern Ireland on deaths that occurred in 2005.

Deaths reported to the SCDEA by Scottish police forces are those which meet the definition used by the Association of Chief Police Officers (Scotland) – “where there is prima facie evidence of a fatal overdose of controlled drugs. Such evidence would be recent drug misuse, for example controlled drugs and/or a hypodermic syringe found in close proximity to the body and/or the person is known to the police as a drug misuser although not necessarily a notified addict.” Thus, most suicides in Scotland will be excluded.

Table 1, together with Figures 1-3, take into account the data from the np-SAD as well as the SCDEA and GRONI. The total thus obtained for the UK is 1,644 drug-related deaths in 2005, compared to 1,820 based on reports received during the same period for 2004. This represents a decrease of 9.7%.

The majority (76%) of the cases were male (Table 1). However, this proportion varied from 69% in Northern Ireland to 84% for Scotland.

Location of death was reported in all but 9 cases. Overall, about 70% died at a defined residential address (i.e. the deceased's home address or other private residential address), 21% died in hospital and 9% died elsewhere (e.g. in a public place). The proportion dying at a defined residential address ranged from 67% for np-SAD cases to 77% in Northern Ireland and 86% in Scotland. The corresponding proportions for deaths in hospital ranged from 24% for np-SAD cases to 15% in Northern Ireland and 9% in Scotland.

The mean age at death was 38.3 years for all sources combined. However, there were differences between the individual datasets: np-SAD 39.0 years; SCDEA 34.1 years; and GRONI 42.1 years. There were also differences in the mean ages broken down by gender. Whereas the overall average age of males was 36.9 years compared to 42.9 for females (a difference of 6 years), the mean age for males in Scotland (34.2 years) was only slightly less than that for females (33.5 years). However, in Northern Ireland the gap was considerably greater; the mean age for males was 33.8 years compared to 60.7 years for females. Similar patterns are exhibited by the median age and semi-interquartile ranges.

The above differences reflect distinctions in the nature and purpose of the three data sources, and the volumes of cases dealt with by them. These variations also illustrate the limitations on making comparisons between them. Further information for each of these databases is given below.

Table 1: Demographic variables for drug-related deaths, UK, 2005

Variable	Category	Number (%)
Total		1,644 (100.0)
Gender	Male	1,247 (75.9)
	Female	397 (24.1)
Age-group (years)	Under 15	1 (0.1)
	15-24	204 (12.4)
	25-34	536 (32.6)
	35-44	499 (30.4)
	45-54	231 (14.1)
	55-64	104 (6.3)
	Over 64	69 (4.2)
Location of death	Defined residential address	1,144 (69.6)
	Hospital	350 (21.3)
	Other	150 (9.1)

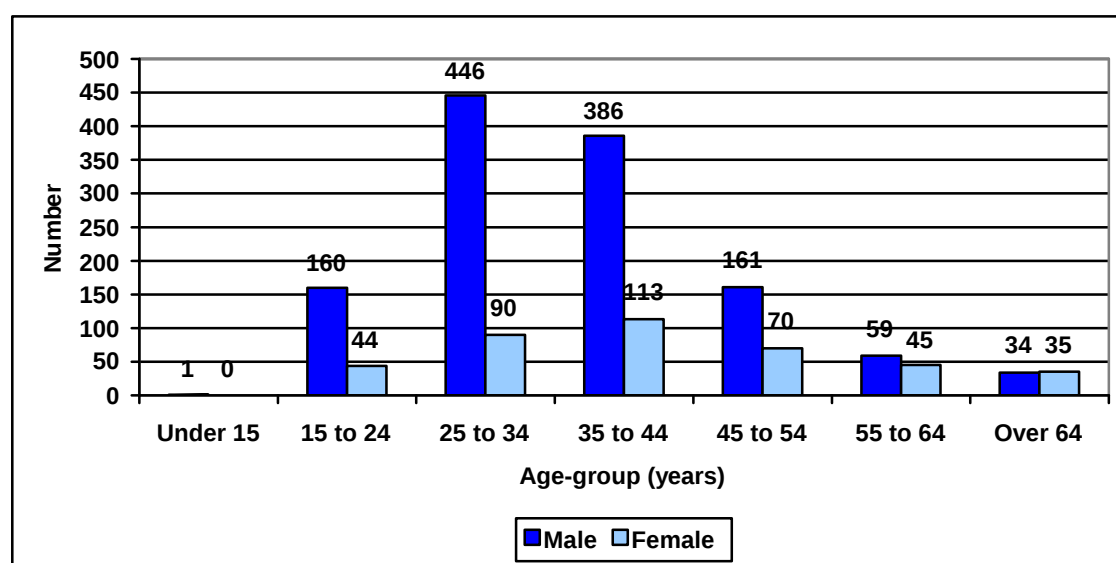
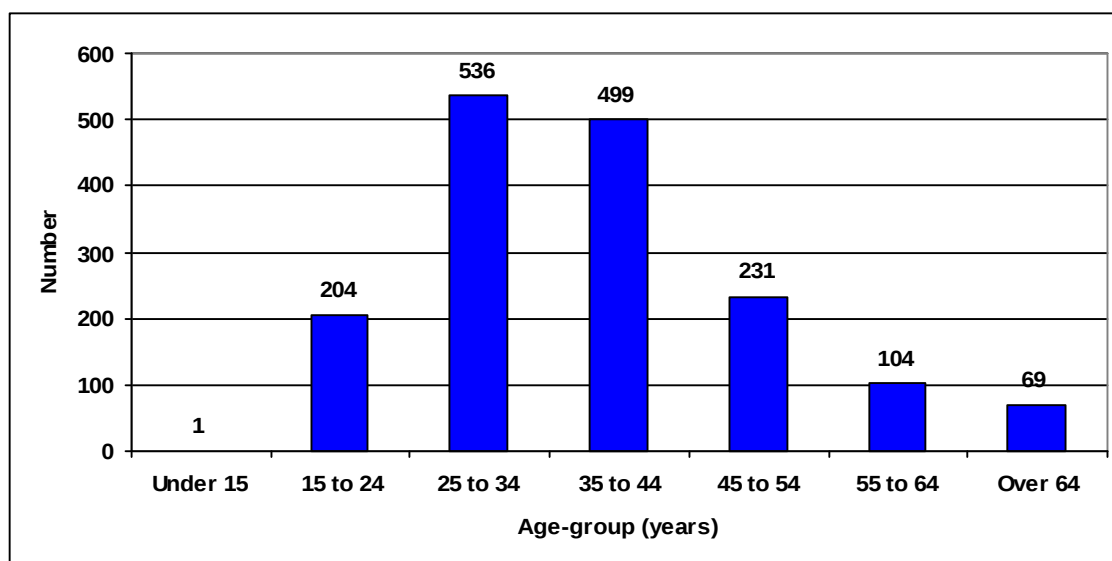
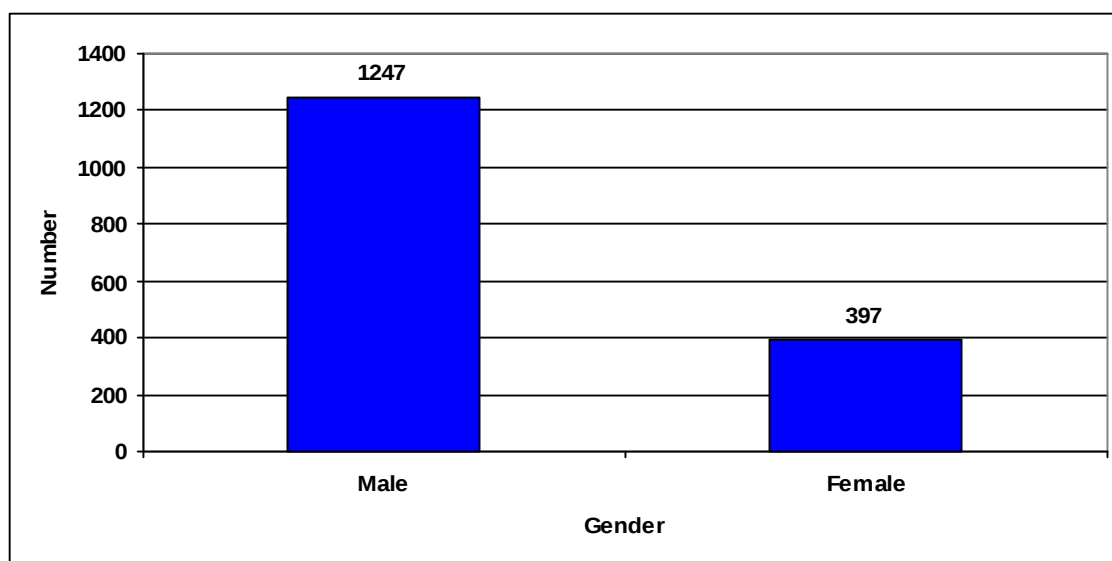
Figure 1: Drug-related deaths by age and gender, UK, 2005

Figure 2: Drug-related deaths by age, UK, 2005**Figure 3: Drug-related deaths by gender, UK, 2005**

IV Profile of np-SAD cases

1. Demography

Notifications of 1,382 drug-related deaths occurring in 2005 were received by the np-SAD. Responses (including nil returns) were received from a total of 109 out of 120 coroners' jurisdictions in England and Wales. This is a coverage rate of about 91%. In addition, the coroners in Guernsey, Jersey and the Isle of Man contributed data analysed in this Annual Report, as well as one Procurator Fiscal in Scotland.

The majority (74%) of the cases were male (Table 2). The median age at death was 37.0 years (semi-interquartile range = 8.2) (Figures 4-6). The majority (73%) of cases were under 45 years. Where ethnicity was known, the majority were White (94.95%); the rest were Black (1.8%), Asian (1.0%), and Other (2.3%).

Table 2: Demographic variables for drug-related deaths, np-SAD cases, 2005

Variable	Category	Number (%)
Total		1,382 (100.0)
Gender	Male	1,028 (74.4)
	Female	354 (25.6)
Employment status	Unemployed	690 (49.9)
	Employed	437 (31.6)
	Childcare/houseperson	25 (1.8)
	Student	30 (2.2)
	Retired/sickness/invalidity	124 (9.0)
	Other	1 (0.1)
	Not known	75 (5.4)
Living arrangements	Alone	515 (37.3)
	With others	629 (45.5)
	No fixed abode	64 (4.6)
	Other	76 (5.5)
	Not known	98 (7.1)

2. Drug-related death rates (Annex AR2)

The jurisdictions in England and Wales reporting the highest annual drug-related death rates per 100,000 population aged 16 years and over were as follows: Brighton & Hove (24.2); Blackpool & the Fylde (12.8); Isle of Man (11.3); East Lancashire (10.0); Liverpool (9.4); Exeter & Greater Devon (8.8); Southampton & New Forest (8.7); and Neath Port Talbot (8.2).

3. Location of death

Location of death was reported in all but one case. About 67% died at a defined residential address (i.e. the deceased's home address or other private residential address), 24% died in hospital and 9% died elsewhere (e.g. in a public place).

Figure 4: Drug-related deaths by age and gender, np-SAD cases, 2005

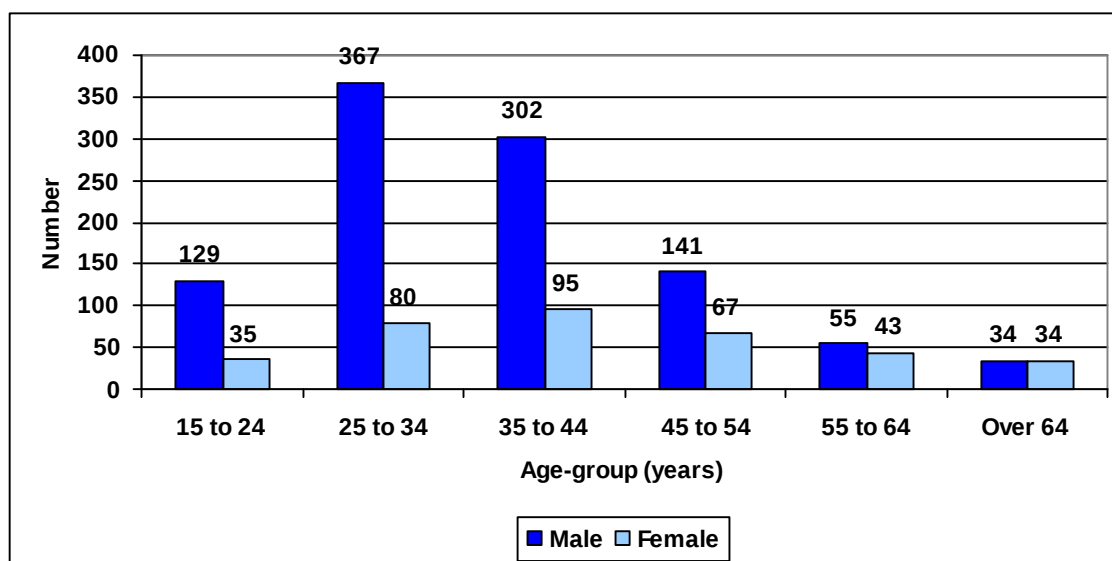


Figure 5: Drug-related deaths by age, np-SAD cases, 2005

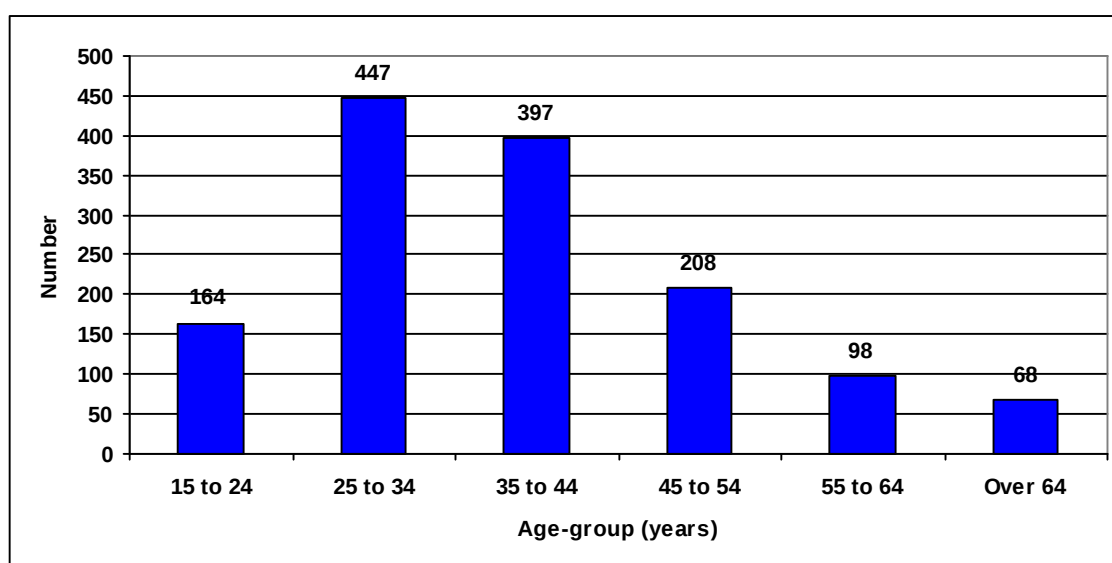
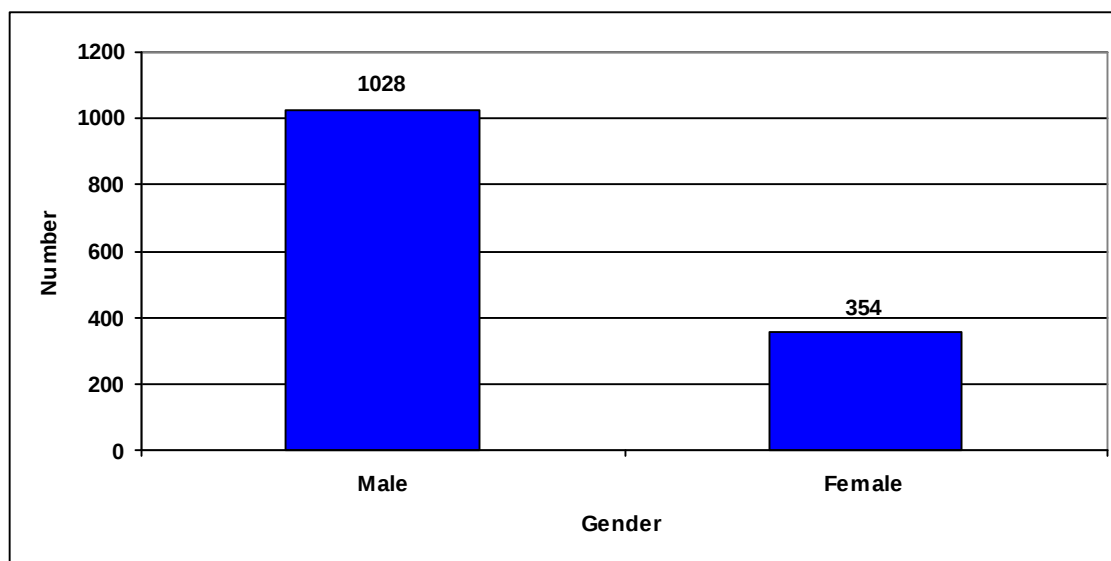


Figure 6: Drug-related deaths by gender, np-SAD cases, 2005

4. Underlying cause(s) of death (Annex AR1)

To enable comparison with various national and international datasets all causes of death have been coded according to the International Classification of Diseases (ICD-10). This is an international standard for the classification of diseases and health-related problems published by the World Health Organisation (1992). The proportions of ICD-10 categories of underlying cause(s) of death were as follows:

- Accidental poisoning (X40-X47): 59.3%
- Intentional self-poisoning (X60-X67): 15.6%
- Poisonings of undetermined intent (Y10-Y14): 14.3%
- Other (e.g. natural causes, drowning, hanging, unascertained): 10.8%

5. Manner of death

Previous np-SAD publications reported on the 'intentionality' of deaths based on the coroner's verdict and/or other additional information employing ICD10 codes. However, this approach is inappropriate for informing interested parties as to whether certain categories of drug-related deaths can be prevented.

Whilst the 'cause' of death (as given in the preceding section) is concerned with the disease or injury responsible for the lethal

sequence of events, the 'manner' of death explains how the cause of death arose, i.e. a natural or violent death. In accordance with best international practice, the following categories for 'manner of death' have been adopted: natural, accidental, suicidal, homicidal, undetermined, and unclassified/not specified.

Verdicts of 'dependence on drugs' or 'non-dependent abuse of drugs' are regarded as 'accidental'. The 'manner of death' is derived from information such as the verdict or 'finding', history of drug misuse or dependence, post mortem drugs, and other information; and is based on the interpretation of the death by np-SAD and clinical presentation/profile of the individual case. The results of this process for 2005 cases are as follows:

- Natural: 2.2%
- Accidental: 65.6%
- Suicidal: 17.5%
- Homicidal: 0.2%
- Undetermined: 13.2%
- Unclassified/not specified: 1.2%

6. Substances implicated in death

6.1 All substances

Psychoactive drugs were not directly implicated in about 6% of cases (n = 80). Of the remaining 1,302 cases, the principal substances implicated were

heroin/morphine (48%), alcohol in combination with other substances (28%), other opiates/opioid analgesics (24%), anti-depressants (19%), hypnotics/sedatives (15%); cocaine (13%); and methadone (13%).

Figure 7 takes into account data where one of the following drugs was known to be implicated: alcohol, anti-depressants, cocaine, ecstasy-type drugs, heroin/morphine, hypnotics/sedatives, methadone, or other opiates/opioid analgesics.

6.2 Single substances

The following substances, as the sole implicated drug, accounted for 583 (45%) deaths: heroin/morphine (20%), other opiates/opioid analgesics (7%), anti-depressants (6%), methadone (4%), cocaine (3%), anti-psychotics (1%), amphetamines (1%), ecstasy-type drugs (1%), hypnotic/sedatives (1%), or cannabis (0.4%).

Table 3: Psychoactive substances implicated in death, np-SAD cases, 2005

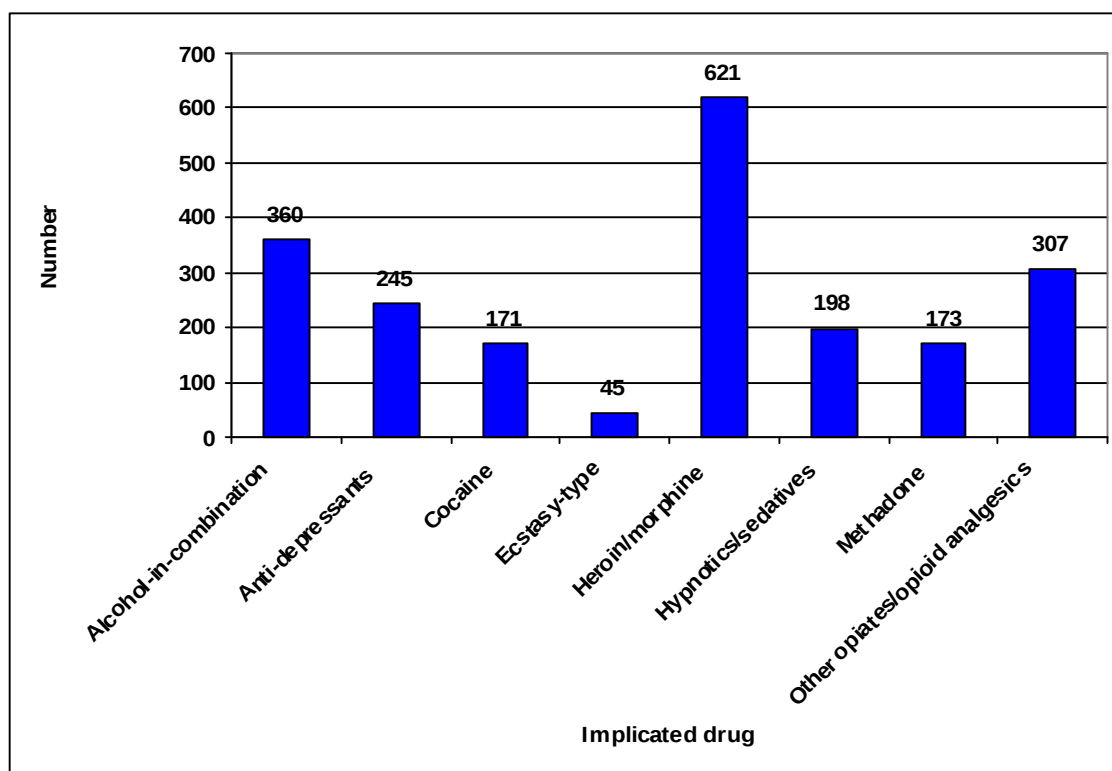
Drug category	Number (%) of cases where no other substance was implicated	Number (%) of cases where drug was implicated
Total	1,302 (100.0)	1,302 (100.0)
Alcohol	-	360 (27.6)
Amphetamines	16 (1.2)	40 (3.1)
Anti-depressants	75 (5.8)	245 (18.8)
Anti-epileptics	11 (0.8)	29 (2.2)
Anti-psychotics	13 (1.0)	58 (4.5)
Cannabis	5 (0.4)	35 (2.7)
Cocaine	38 (2.9)	171 (13.1)
Ecstasy-type drugs	16 (1.2)	45 (3.5)
GHB	2 (0.2)	3 (0.2)
Heroin/morphine	254 (19.5)	621 (47.4)
Hypnotic/sedatives	18 (0.8)	198 (15.2)
Methadone	45 (3.5)	173 (13.3)
Other opiates/opioid analgesics	90 (6.9)	307 (23.6)
Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.		

7. Prescribed psychoactive medication (Table 4)

Altogether, 794 np-SAD cases were reported to be receiving prescribed psychoactive medication at the time of their death. Within this group prescribed medications of the following therapeutic

drug classes were reported: anti-depressants (49%); hypnotic/sedatives (43%); other opiate/opioid analgesics (24%); anti-psychotics (20%) and methadone (14%). 'Polypharmacy', i.e. multiple prescriptions of psychoactive drugs, occurred in 72% of these cases.

Figure 7: Drug-related deaths by psychoactive drug implicated, np-SAD cases, 2005



V Associated risks

1. Prescribed psychoactive drugs (Table 4)

Of the 794 cases prescribed psychoactive medication at the time of their death, 67.1% had those drugs, alone or in combination with other drugs, implicated in their death.

1.1 Methadone

Methadone, alone and in combination with other drugs, was implicated in 173 cases. Of these, 67% may have obtained methadone from illicit sources, compared to 33% who were known to be receiving

prescribed methadone prior to their death (Percentage ratio: PR = 2.0, 95% CI = 1.6 – 2.6).

Methadone alone was implicated in 45 cases. Of these, 62% may have obtained the drug from illicit sources, compared to 38% who were known to be receiving prescribed methadone, compared to (PR = 1.6, 95% CI = 1.1 – 2.6).

Overall, it appears that methadone-related deaths are less likely to arise from licit than illicit methadone.

Table 4: Prescribed psychoactive medication, np-SAD cases, 2005

Drug category	Number (%) of cases on prescribed psychoactive medication	Number (%) of cases where same drug was implicated in death
Total	794 (100.0)	
Amphetamines	2 (0.3)	1 (50.0)
Anti-depressants	390 (49.1)	187 (47.9)
Anti-epileptics	81 (10.2)	19 (23.5)
Anti-psychotics	156 (19.6)	44 (28.2)
Heroin/morphine	18 (2.3)	11 (61.1)
Hypnotic/sedatives	339 (42.7)	109 (31.2)
Methadone	116 (14.4)	57 (49.1)
Other opiates/opioid analgesics	192 (24.2)	118 (61.5)
Note: Column totals may sum to more than 100% since more than one substance may be prescribed to an individual and more than one substance may be implicated in a death.		

1.2 Anti-depressants

Anti-depressants, alone and in combination with other drugs, were implicated in 245 cases. Of these, 76% were known to be receiving prescribed anti-depressants at the time of their death, compared to 24% who may have used drugs prescribed for others (PR = 3.2, 95% CI = 2.5 – 4.1).

Anti-depressants alone were implicated in 75 cases. Of these, 81% were known to be receiving prescribed anti-depressants, compared to 19% who may have used drugs prescribed for others (PR = 4.4, 95% CI = 2.7 – 7.1).

Those receiving prescribed anti-depressants were significantly more likely to have that class of drug implicated in their death, either in combination or as the sole drug, compared to those who had apparently used drugs prescribed to others.

1.3 Other opiates/opioid analgesics

Other opiates/opioid analgesics (e.g. dihydrocodeine, dextropropoxyphene) alone and in combination with other drugs, were implicated in 307 cases. Of these, 62% may have obtained the drug by other means, compared to the 38% who were known to be receiving prescribed opiate/opioid analgesics prior to their death (PR = 1.6, 95% CI = 1.4 – 1.9).

Other opiate/opioid analgesics alone were implicated in 90 cases. Of these, the drugs were prescribed in 54% of cases, compared to being apparently obtained by other

means in 46% of cases (PR = 1.2, 95% CI = 0.9 – 1.6).

1.4 Hypnotic/sedatives

Hypnotic/sedatives, alone and in combination with other drugs, were implicated in 198 cases. Of these, 55% may have obtained them illicitly, compared to the 45% who were known to be receiving a prescription for this class of drug (PR = 1.2, 95% CI = 1.0 – 1.5).

Eighteen cases had hypnotic/sedatives alone implicated in their death, of whom 12 (67%) had received the drug on prescription, compared to 6 (33%) who may have obtained it illicitly (PR = 2.0, 95% CI = 1.0 – 4.2).

In summary, those prescribed hypnotic/sedatives were more likely to have that class of drug implicated in fatality if only one substance was implicated.

2. Gender and underlying cause(s) of death

Males were more likely than females to die of accidental poisoning (65.6% vs. 40.7%) (PR = 1.4, 95% CI = 1.3 – 1.5). Females, by contrast, were more likely than males to die of intentional self-poisoning (28.0% vs. 11.3%) (PR = 2.5, 95% CI = 2.0 – 3.1), and poisoning of undetermined intent (21.2% vs. 12.0%) (PR = 1.8, 95% CI = 1.4 – 2.3).

3. Gender and manner of death

A similar pattern is exhibited with regard to manner of death. Males were more likely

than females to die an accidental death (71.9% vs. 47.2%) (PR = 1.5, 95% CI = 1.4 – 1.7). Conversely, females were more likely than males to die a suicidal death (29.4% vs. 13.4%) (PR = 2.2, 95% CI = 1.7 – 2.7), or a death where the manner was undetermined (18.9% vs. 11.3%) (PR = 1.7, 95% CI = 1.3 – 2.2).

4. Age and underlying cause(s) of death

Those aged less than 45 years were more likely than older individuals to die of accidental poisoning (68.4% vs. 34.8%) (PR = 2.0, 95% CI = 1.7 – 2.3). Those aged 45 years or over, by contrast, were more likely than younger individuals to die of intentional self-poisoning (34.0% vs. 8.7%) (PR = 3.9,

95% CI = 3.0 – 5.0), and poisoning of undetermined intent (21.7% vs. 11.6%) (PR = 1.9, 95% CI = 1.4 – 2.4).

5. Age and manner of death

A similar pattern is exhibited with regard to manner of death. Those aged less than 45 years were more likely than older individuals to die an accidental death (74.5% vs. 41.4%) (PR = 1.8, 95% CI = 1.6 – 2.0). Conversely, those aged 45 years or over were more likely than younger individuals to die a suicidal death (35.0% vs. 11.0%) (PR = 3.2, 95% CI = 2.5 – 4.0), or a death where the manner was undetermined (18.2% vs. 11.4%) (PR = 1.6, 95% CI = 1.2 – 2.1).

Table 5: Age and psychoactive drug implicated in death, np-SAD cases, 2005

Age-group (years)	Number (%)	Drug category (alone or in combination) most frequently implicated in each age group
All ages	1,302 (100.0)	Heroin/morphine (47.7%)
15–24	164 (11.9)	Heroin/morphine (45.7%)
25–34	447 (34.3)	Heroin/morphine (63.3%)
35–44	397 (30.5)	Heroin/morphine (47.1%)
45–54	208 (16.0)	Other opiates/opioid analgesics (32.7%)
55–64	98 (7.5)	Other opiates/opioid analgesics (41.8%)
65 & over	68 (5.2)	Other opiates/opioid analgesics (48.5%)

6. Age and drug implicated in death

In cases aged 15–44 years, heroin/morphine (57%) was the most frequently mentioned drug contributing to fatality. In those aged 45 years and over, other opiates/opioid analgesics (38%) were the most frequently mentioned (Table 5).

7. Gender and drug implicated in death

The pattern of drug-specific fatality is somewhat different in male and female cases.

Among males, the most frequently mentioned drugs were: heroin/morphine (53%); alcohol-in-combination (28%); other opiates/opioid analgesics (19%); cocaine and hypnotic/sedatives (both 14%); and methadone and anti-depressants (both 13%).

Furthermore, there are a higher proportion of cases of drug-specific fatality among males compared to females in respect of amphetamines, ecstasy-type drugs and GHB.

Among female cases, the most frequently mentioned drugs were: anti-depressants (33%); other opiates/opioid analgesics (31%); heroin/morphine (23%); alcohol-in-combination (20%); hypnotic/sedatives (14%); methadone (12%); and cocaine (9%).

VI Drug abuse/dependence

Cases reported to np-SAD with a history of drug abuse/dependence ($n = 749$) were compared to those without such a history ($n = 417$) on the following variables: demography, location of death, underlying cause(s) and manner of death. Two hundred and sixteen np-SAD cases (16%) were reported as “not known” with respect to history of drug abuse/dependence. These cases were excluded from further analysis.

1. Demography

In comparison with non drug abusers (NDAs: 57.3%), drug abusers/dependents (DAs: 84.1%) were more likely to be male ($PR = 1.5$, 95% $CI = 1.3 - 1.6$) and less than 45 years of age, 84.8% compared to 52.5% ($PR = 1.6$, 95% $CI = 1.5 - 1.8$). The median age at death for DAs was 34.1 years (semi-interquartile range = 6.4), while that for NDAs was 44.3 years (semi-interquartile range = 11.1) (Mann-Whitney $U = 94936.5$, $p < 0.0005$).

2. Location of death

There was no significant difference between DAs and NDAs with respect to the location of their death. In both groups the majority died at home or in a defined residential address, although this proportion was

higher amongst NDAs (71.0% vs. 64.0% for DAs) ($PR = 0.8$, $CI = 0.7 - 0.9$). Hospital deaths accounted for a higher proportion of DA deaths (24.8%) than those amongst NDAs (20.1%) ($PR = 1.2$, $CI = 1.0 - 1.5$). A higher proportion of DAs (11%) died in temporary accommodation or in public places than NDAs (8%).

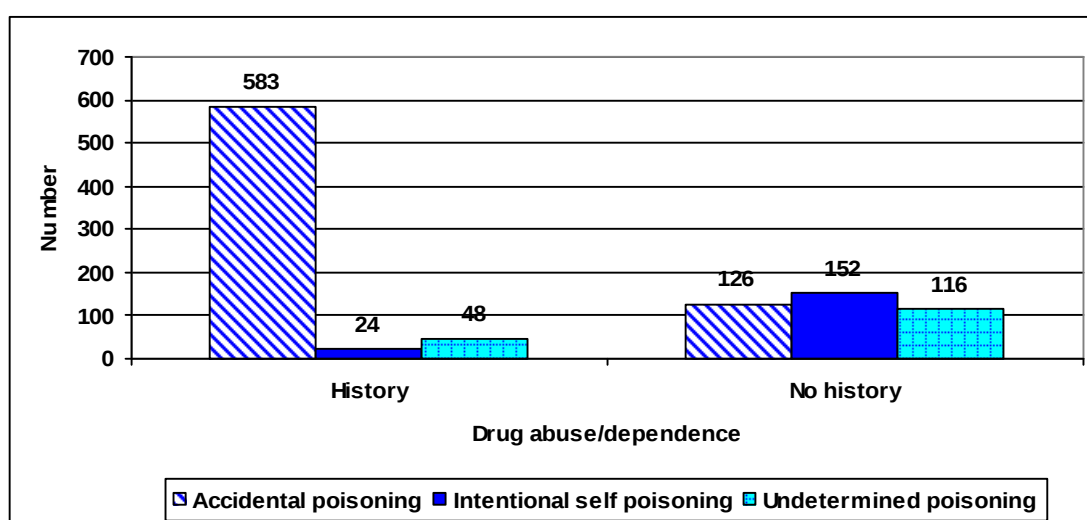
3. Underlying cause(s) of death

DAs were more likely than NDAs to die of accidental poisoning (77.8% vs. 30.1%) ($PR = 2.6$, 95% $CI = 2.2 - 3.0$) – Figure 8. NDAs, by contrast, were more likely than DAs to die of intentional self-poisoning (36.5% vs. 3.2%) ($PR = 11.4$, 95% $CI = 7.5 - 17.2$), and poisoning of undetermined intent (27.8% vs. 6.4%) ($PR = 4.3$, 95% $CI = 3.2 - 5.9$).

4. Manner of death

A similar pattern is exhibited with regard to manner of death. DAs were more likely than NDAs to die an accidental death (84.1% vs. 34.5%) ($PR = 2.4$, 95% $CI = 2.1 - 2.8$). Conversely, NDAs were more likely than DAs to die a suicidal death (37.9% vs. 5.1%) ($PR = 7.5$, 95% $CI = 5.4 - 10.4$), or a death where the manner was undetermined (24.7% vs. 6.7%) ($PR = 3.7$, 95% $CI = 2.7 - 5.1$).

Figure 8: Principal underlying cause(s) of death by drug abuse/dependence history, np-SAD cases, 2005



VII np-SAD drug-related deaths in 2004 reported in 2005/6

Profile of cases

A further 270 inquest reports were received from coroners in 2005/6 on deaths occurring in 2004. Demographic details and a summary of principal drugs implicated in death are presented below. The distribution of deaths according to coroners' jurisdictions is summarised in Annex AR2.

1. Demography

The majority of cases were male (76%). The median age at death was 37.0 years (semi-interquartile range – 8.0), with 74% being under the age of 45 years. Where ethnicity was known, 90.9% were White, 3.8% Black, 1.0% Asian, and 4.3% Other. Approximately 46% of cases were unemployed and 37% of cases were living with others the time of their death (Table 6).

Table 6: Demographic variables, additional 2004 np-SAD cases

Variable	Category	Number (%) of np-SAD cases in 2004 reported in 2005/6
Total		270 (100.0)
Gender	Male	205 (75.9)
	Female	65 (24.1)
Employment Status	Unemployed	124 (45.9)
	Employed	85 (31.5)
	Childcare/houseperson	4 (1.5)
	Student	9 (3.3)
	Retired/sickness/invalidity	26 (9.6)
	Other	0 (0.0)
	Not known	22 (8.1)
Living Arrangements	Alone	82 (30.4)
	With others	101 (37.4)
	No fixed abode	15 (5.6)
	Other	24 (8.9)
	Not known	48 (17.8)

2. Location of death

The majority of cases (60%) died at a defined residential address (e.g. the deceased's home address or other private residential address), 28% died in hospital and 12% died elsewhere (e.g. in a public place).

3. Underlying cause(s) of death

The proportions of ICD-10 categories of underlying cause of death were as follows:

- Accidental poisoning (X40-X47): 52.6%
- Intentional self-poisoning (X60-X67): 13.7%
- Poisoning of undetermined intent (Y10-Y14): 9.6%
- Other and unknown causes: 24.1%

4. Manner of death

The cause of death is considered to have arisen in these cases as follows:

- Natural: 3.7%
- Accidental: 65.6%
- Suicidal: 20.0%
- Homicidal: 0.4%
- Undetermined: 9.3%
- Unclassified/not specified: 1.1%

5. Substances implicated in death

The principal psychoactive substances implicated were: heroin/morphine (39%), alcohol in combination with other drugs (26%), and other opiates/opioid analgesics (19%). Heroin/morphine as the sole implicated drug accounted for 18% of

deaths, opioid analgesics 6%, and anti-depressants for 3% of deaths. The

breakdown of psychoactive substances implicated in death is presented in Table 7.

Table 7: Psychoactive substances implicated in death, additional 2004 np-SAD cases

Drug category	Number (%) of cases where no other substance implicated	Number (%) of cases where drug implicated
Total	218 (100.0)	218 (100.0)
Alcohol	-	70 (25.9)
Amphetamines	1 (0.4)	5 (1.9)
Anti-depressants	9 (3.3)	36 (13.3)
Anti-epileptics	0 (0.0)	2 (0.7)
Anti-psychotics	4 (1.5)	14 (5.2)
Cannabis	0 (0.0)	8 (3.0)
Cocaine	5 (1.9)	25 (9.3)
Ecstasy-type drugs	3 (1.1)	9 (3.3)
GHB	0 (0.0)	1 (0.4)
Heroin/morphine	49 (18.1)	104 (38.5)
Hypnotics/sedatives	2 (0.7)	43 (15.9)
Methadone	5 (1.9)	30 (11.1)
Other opiates/opioid analgesics	17 (6.3)	51 (18.9)

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.

VIII Changes between 2004 and 2005

The following section compares deaths in 2005 with those that occurred in 2004. The sources of information are the same for both years, i.e. cases reported using the np-SAD data collection form. Figures for 2005 (and 2004, to a lesser extent) can be expected to increase as further inquests are completed and the results notified to the Programme. These figures for 2005, therefore, cannot be compared directly with those in previous np-SAD publications.

1. Demographic characteristics

The figure reported on here for deaths in 2005 is 1,382, a decrease of about 16% from the previous year (1,637). The demographic profile of cases remained stable in 2005 with no significant changes in age, gender, ethnicity, living arrangements, employment status, and place of death distributions. However, there was a small increase in the median age at death, from 36 to 37 years.

2. Underlying cause(s) of death

The proportion of deaths due to accidental poisoning increased from 55.5% in 2004 to

59.3% in 2005 (PR = 1.1, 95% CI = 1.0 - 1.1), as did that for poisonings of undetermined intent from 12.6% in 2004 to 14.3% in 2005 (PR = 1.1, 95% CI = 0.9 - 1.4). By contrast, deaths from intentional self-poisoning decreased from 18.5% to 15.6% (PR = 1.2, 95% CI = 1.0 - 1.4). The changes observed here between the two years may be due, in part, to differences in coding practices.

3. Manner of death

The patterns observed for underlying cause(s) of death were echoed for the manner of death. The proportion of accidental deaths decreased from 75.9% in 2004 to 65.6% in 2005 (PR = 1.2, 95% CI = 1.1 - 1.2), as did suicides – from 20.4% to 17.5% (PR = 1.2, 95% CI = 1.0 - 1.4). Conversely, undetermined deaths increased from 1.8% to 13.2% (PR = 7.5, 95% CI = 5.19 - 11.0). Natural deaths (1.6% - 2.2%), homicides (0.1% - 0.2%), and deaths unclassified/not specified (0.2% - 1.2%) remained stable.

4. Substances implicated in death

4.1 Multiple substances

Data on implicated drugs were available for 1,302 deaths occurring in 2005 (1,496 in 2004). Heroin/morphine remained the most frequently mentioned drug in 2005, having been implicated in 48% of deaths, similar to the previous year. There were increases in both the number and proportion of mentions of amphetamines, ecstasy-type drugs, cocaine and cannabis (Table 8).

4.2 Single substance

There were no significant changes between 2004 and 2005 in the proportions accounted for by individual drugs in fatalities related to a single substance, excluding alcohol, (Table 9). However, there were increases in the number of deaths accounted for by amphetamines, ecstasy-type drugs and cocaine.

Table 8: Changes in proportions of psychoactive substances implicated in multiple substance deaths, np-SAD cases, 2004-2005

Substance	2004 (N = 1,496)	2005 (N = 1,302)	Percentage Ratio (PR)	95% CI	Change (percentage points)
Alcohol-in-combination	27.3	27.5	1.0	0.9 - 1.1	+0.2
Amphetamines	1.5	3.1	2.1	1.2 - 3.5	+1.6
Anti-depressants	20.1	18.8	1.1	0.9 - 1.2	-1.3
Anti-epileptics	1.9	2.2	1.2	0.7 - 2.0	+0.3
Anti-psychotics	4.8	4.5	1.1	0.8 - 1.5	-0.3
Cannabis	1.4	2.7	1.9	1.1 - 3.3	+1.3
Cocaine	10.2	13.1	1.3	1.1 - 1.6	+2.9
Ecstasy-type drugs	2.5	3.5	1.4	0.9 - 2.1	+1.0
GHB	0.3	0.2	1.2	0.3 - 5.2	-0.1
Heroin/morphine	46.7	47.6	1.0	0.9 - 1.1	+0.9
Hypnotic/sedatives	16.6	15.2	1.1	0.9 - 1.3	-1.4
Methadone	12.6	13.3	1.1	0.9 - 1.3	+0.7
Other opiates/ opioid analgesics	22.6	23.5	1.0	0.9 - 1.2	+0.9

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.

Table 9: Changes in proportions of psychoactive substances implicated in single substance deaths, np-SAD cases, 2004-2005

Substance	2004 (N = 1,496)	2005 (N = 1,302)	Percentage Ratio (PR)	95% CI	Change (percentage points)
Amphetamines	0.8	1.2	1.5	0.7 - 3.2	+0.4
Anti-depressants	6.2	5.8	1.1	0.8 - 1.4	-0.4
Anti-epileptics	0.5	0.8	1.8	0.7 - 4.6	+0.3
Anti-psychotics	1.8	1.0	1.8	0.9 - 3.5	-0.8
Cannabis	0.3	0.4	1.4	0.4 - 5.3	+0.1
Cocaine	1.9	2.9	1.6	1.0 - 2.5	+1.0
Ecstasy-type drugs	0.9	1.2	1.3	0.6 - 2.7	+0.3
GHB	0.1	0.2	2.3	0.2 - 25.3	+0.1
Heroin/morphine	21.7	19.4	1.1	1.0 - 1.3	-2.3
Hypnotic/sedatives	1.9	1.4	1.4	0.8 - 2.4	-0.5
Methadone	3.4	3.5	1.0	0.7 - 1.5	+0.1
Other opiates/ opioid analgesics	8.0	6.8	1.2	0.9 - 1.5	-1.2

5 Deaths per 100,000 population

5.1 Changes in jurisdictions with highest rates in 2004

The following jurisdictions reported annual drug-related death rates of 10/100,000 or higher in 2004: Brighton & Hove (22.3); Liverpool (15.8); Jersey (12.5); and Blackpool & the Fylde (11.1). Jersey and Liverpool both showed declines in 2005. The rate in both Blackpool & the Fylde, and Brighton & Hove increased slightly (+9%). The most significant reductions were in: Jersey (-67%) and Liverpool (-40%).

5.2 Changes in jurisdictions with lowest rates in 2004

The following jurisdictions reported annual drug-related death rates of less than 1 per 100,000 population in 2004: Ceredigion (0.00); City of London (0.00); Isles of Scilly (0.00); South Shropshire (0.00); Stamford (0.00); Cardiff and Vale of Glamorgan (0.3); Cornwall (0.5); Torbay & South Devon (0.5); Black Country (0.8); Berkshire (0.8); Spilsby & Louth (0.8); Surrey (0.8); Cheltenham (0.9); and Powys (0.9). Of these, the City of London, Cornwall, the Isles of Scilly, Spilsby & Louth, and Stamford remained unchanged. The remainder all showed some increases, the most evident being:

Ceredigion (+766%); Torbay & South Devon (+571%); Cheltenham (+226); Cardiff & Vale of Glamorgan (+204); Powys (+200%); Black Country (+100%); and Surrey (+72%).

5.3 Jurisdictions with highest rates in 2005

The following jurisdictions reported annual drug-related death rates higher than 10/100,000 in 2005: Brighton & Hove (24.2); Dumbarton (13.4); Blackpool & the Fylde (12.8); and Isle of Man (11.3). Of these three areas, only the Isle of Man showed a significant increase over 2004 (up from 1.56).

5.4 Jurisdictions with lowest rates in 2005

The following jurisdictions reported annual drug-related death rates of less than 1/100,000 in 2005: City of London (0.00); Isles of Scilly (0.00); Stamford (0.00); Berkshire (0.2); Sunderland (0.4); Cornwall (0.5); West Manchester (0.5); South & West Cambridgeshire (0.6); Gwent (0.7); Essex & Thurrock (0.8); Central & South East Kent (0.8); Spilsby & Louth (0.8); Cardiff & the Vale of Glamorgan (0.9); and Rutland & North Leicestershire (0.9).

IX Commentary

This is the seventh annual report produced by the *national programme* on Substance Abuse Deaths. This annual report is different from the semi-annual surveillance reports in that it reports on deaths that actually occurred in 2005, even where inquests (or other investigations) were completed in 2006. The report provides useful information that can help policy makers, such as the Department of Health and the Devolved Administrations, to assess the impact of service provision and other interventions on drug-related mortality.

This review is different to those in previous years in respect of its geographical coverage. As indicated earlier, detailed information on individual Scottish cases is more comprehensive, albeit not as complete a picture as the figures reported by the General Register Office for Scotland.

This year, also for the first time, the GRONI have provided data on drug-related poisoning deaths registered up to the end of 2005.

The demographic profile of np-SAD cases remains consistent with last year's report. The majority of cases were males (74%), under the age of 45 years (74%), and White (95%). Where the information was available, at least 64% of the sample was drug abuser/dependent, as defined by the Programme.

Brighton & Hove recorded the highest annual death rate (24.2/100,000 population) in 2005; this rate is higher than in 2004, but lower than in 2003. Dumbarton reported the second highest annual death rate (13.4) in 2005. Further areas of concern with relatively high annual drug-related death rates include: Blackpool & the Fylde (12.8),

and the Isle of Man (11.3).

The City of London (0.00); Isles of Scilly (0.00); Stamford (0.00); Berkshire (0.2); Sunderland (0.4); Cornwall (0.5); and West Manchester (0.5) recorded the lowest death rates in 2005.

On the whole, for np-SAD cases, the present annual report has seen a 6% decrease in DRDs. Given that compliance rate (91%) of coroners is slightly better than in the previous year, the reduction that we have observed may be real rather than a reflection of low reporting rates by the coroners concerned. Similarly, according to ONS figures, the number of DRDs in England and Wales using the broader ONS definition, the EMCDDA definition and the UK Drug Strategy peaked in 2000 and then fell in each of the three subsequent years (2001-3), before rising in 2004. It may well be therefore that the pattern in the total number of deaths in 2005 using the np-SAD case definition reflects a real reversal of the increase recorded in 2004.¹

The proportion of deaths due to intentional self-poisoning declined by 3 percentage points in 2005. However, there were rises in the proportions of accidental poisoning and poisonings of undetermined intent (3.8 and 1.7 percentage points respectively). There appears to have been a decrease in deaths directly caused by some traditionally prescribed psychoactive compounds, e.g. anti-depressants and hypnotics/sedatives.

By contrast, fatalities related to consumption of illicit drugs have shown an increase. Not only is this true of heroin, but also of stimulants including amphetamine, ecstasy-type drugs and cocaine, and - to a lesser extent - cannabis. It would seem that the fatal consequences of the growing widespread consumption of cocaine in the UK are now quite evident. Its more addictive derivative 'crack' is becoming more evident in terms of it being specifically mentioned in an increasing number of the forms returned to the np-SAD. Previous np-SAD surveillance reports have indicated a steady increase in cocaine-related deaths

since 1997. We repeat last year's recommendation for thorough investigation and urgent policy responses.

The number of deaths in which amphetamine was implicated rose from 22 in 2004 to 40 in 2005; deaths in which it was the sole drug rose from 12 to 16. This aspect needs to be monitored.

This year (2005) witnessed a slight increase in the number of deaths involving ecstasy-type drugs. Sixteen cases had these drugs solely implicated in death, which means that for about 36% of the 2005 ecstasy-related deaths the real cause of death was not attributable to polydrug abuse, but to ecstasy alone, thus confirming earlier research (Schifano *et al*, 2003).

Another continuing area of concern is fatalities due to methadone. Although the number of deaths in which methadone was the sole drug mentioned reported to the Programme remained stable in 2005, the numbers still remain significantly high for a substance which is primarily used in substitution treatment. Furthermore, diversion continues to be an important feature of methadone deaths, in that in up to 60% of such cases methadone prescribed for one individual has been consumed by another person. The number of mono-valent methadone-related fatalities remain relatively high, as does the issue of diversion in such cases.

Five deaths in 2005 involving the smuggling of cocaine into or through UK ports and/or airports were notified to the np-SAD. In all five cases, the substance was concealed in packets within the body of the deceased in order to avoid the drug being discovered or detected by law enforcement agencies. Deaths resulting from the concealment of drugs within the human body are fairly rare, but they do happen. The np-SAD databases contain details of at least seven other such cases between 2001 and 2004.

Khat (or qat) is a herbal product consisting of the leaves and shoots of the shrub *catha edulis*. It is cultivated primarily in East Africa and the Arabian Peninsula, harvested and then chewed to obtain a stimulant effect, similar to that produced by amphetamines. Fresh leaves of khat contain the alkaloid stimulants cathinone (S-(-)- α -aminopropiophenone) and cathine (S,S-(+)-norpseudoephedrine. Cathinone

¹ The number of deaths in England and Wales that occurred in 2005 and were reported to the Programme which meet the criteria used for monitoring the UK Drug Strategy number 1,091. This is about one per cent lower than the corresponding number for 2004 (1,103).

and cathine are controlled substances under Class C of the UK Misuse of Drugs Act 1971; the plant itself is not. There are no reported cases of previous fatalities in the UK, directly associated with the consumption of khat. However, one such

case was reported to the np-SAD in 2005, involving a Somali male resident in London. Additional information is required to determine the circumstances surrounding this episode.

X A closer look – methamphetamine

Methamphetamine, a stimulant that is chemically related to amphetamine, is known to have high abuse potential. Its central nervous system effects are reported to be much greater than those produced by amphetamine. Methamphetamine chloride, largely prepared in illegal laboratories, occurs commonly as crystals that resemble ice and hence has been given the following street names – 'ice', 'crystal-meth', and 'glass'. Other forms of methamphetamine include a white odourless powder that is readily soluble in water (thus injectable); and small brightly coloured tablets.

Methamphetamine is manufactured in illicit laboratories, some of which are home-based, using inexpensive ingredients that are easily available. For this reason, there is high potential for widespread distribution and abuse. No official figures of prevalence are available in the UK given that the British Crime Survey and other similar surveys do not currently differentiate between amphetamine and methamphetamine. However, there are cases of occasional seizures by the custom and police and anecdotal reports of increasing use in London in the gay community, and among dance rave attendees (ACMD, 2006). These are indications that methamphetamine is becoming more popular in the UK.

In the United States, lifetime prevalence of methamphetamine abuse in 2004 was 4.9% amongst those aged 12 years or older while last month prevalence was 0.2% (SAMHSA, 2006a). Whilst the lifetime rate for 18-25 year olds was the same, the last month rate was 0.6%. Furthermore, an increase of 30% in methamphetamine-related episodes has been reported between 1999 and 2000 in US hospital emergency departments (DAWN, 2000). By 2004, such episodes accounted for 4% of all admissions (DAWN, 2006). The latest figures show that methamphetamine admissions to treatment rose 11% between 2003 and 2004, and by

25% between 2002 and 2004 (SAMHSA, 2006b).

In the UK, methamphetamine is listed as a controlled drug in Schedule 2, Part II, of the Misuse of Drugs Act 1971, and is classified as a Class B drug. However, in injectable form, methamphetamine is classified as a Class A drug.

The short-term effects of methamphetamine include increased attention; decreased fatigue; increased activity; decreased appetite; euphoria and rush; increased respiration and hyperthermia. Animal studies have revealed that methamphetamine at high doses can damage nerve terminals in the dopaminergic region of the brain; increase body temperature to a dangerous level and cause convulsions (NIDA, 2002). Also, acute intoxication could result in tachycardia, hypertension, agitation, paranoia, confusion and violence (ACMD, 2006b).

Unlike amphetamine, methamphetamine can be smoked as "ice", which makes its consumption a lot easier with potential for widespread use. The high produced by smoking ice is known to last between 8-24 hours compared to 20-30 minutes that cocaine smoking produces (NIDA, 2002).

There are indications that methamphetamine use is linked to rising HIV transmission. Reports from the US have shown an increase in methamphetamine use in the gay community with concomitant increase in number of sexual partners, frequency of intercourse, unprotected sex, and sharing of injecting equipment (Boddiger, 2005).

Fatality profiles

Two cases of methamphetamine-related fatality that occurred in 2005 were reported to the np-SAD.

Case 1: 25 year-old White female, living with parents; died of intracranial haemorrhage in a residential address (not own residence). Drugs detected at post-mortem included MDMA, MDA and **methamphetamine**. The coroner returned a verdict of non-dependent abuse of drugs.

Case 2: 42 year-old White male, employed and living alone; died in hospital of cerebral and pulmonary oedema and mixed drug intoxication. Known to be an injecting drug user, with a history of crack use; was recently discharged from prison. Drugs detected at post-mortem included MDMA, MDA, **methamphetamine**, amphetamine, cocaine, ketamine and cannabis. The levels of MDA (0.48 ug/ml) and methamphetamine (0.49 ug/ml) in the blood were identical; a higher level of ketamine (0.96 ug/ml) was

detected in the blood. The coroner returned a verdict of accidental death.

Commentary: In both cases, methamphetamine was not the only drug implicated in fatality. Methamphetamine toxicity occurred within a polysubstance context that featured other stimulants/ecstasy-type substances. Surprisingly, alcohol was not mentioned in both cases, unlike in cocaine and amphetamine toxicity where alcohol is often known to feature prominently. Further self-reported and toxicological monitoring of the extent of methamphetamine use, associated morbidity and mortality should be encouraged, in order to differentiate its morbidity and mortality profile from that of amphetamines and other stimulants and, thus facilitate targeted prevention initiatives.

Annex AR1: np-SAD drug-related deaths by underlying cause(s), 2005

ICD-10	No. of cases (n = 1,382)	%	Description
X40	3	0.2	<i>Accidental poisoning</i> Non-opioid analgesics, antipyretics and anti-rheumatics
X41	84	6.1	Anti-epileptic, sedative-hypnotic, Anti-parkinsonism and psychotropic drugs, not elsewhere classified
X42	702	50.8	Narcotics and psychodysleptics (hallucinogens), not elsewhere classified
X43	1	0.1	Other drugs acting on the autonomic nervous system
X44	23	1.7	Other and unspecified drugs, medicaments and biological substances
X45	6	0.4	Alcohol
X60	3	0.2	<i>Intentional self-poisoning</i> Non-opioid analgesics, antipyretics and anti-rheumatics
X61	95	6.9	Anti-epileptic, sedative-hypnotic, Anti-parkinsonism and psychotropic drugs, not elsewhere classified
X62	111	8.0	Narcotics and psychodysleptics (hallucinogens), not elsewhere classified
X64	5	0.4	Other and unspecified drugs, medicaments and biological substances
X65	1	0.1	Alcohol
T40.2	1	0.1	<i>Overdose</i> Opioid
T42.6	1	0.1	Sedative/hypnotic
Z72.2	10	0.7	Drug abuse, personal history
Y10	3	0.2	<i>Poisoning of undetermined intent</i> Non-opioid analgesics
Y11	74	5.4	Anti-Parkinsonism drugs
Y12	113	8.2	Narcotics/psychodysleptics
Y14	4	0.3	Other/unspecified drugs
Y15	4	0.3	Alcohol
I25.1	3	0.2	<i>Cardiovascular system – diseases, defects or conditions affecting</i> Atherosclerotic heart disease
I33	2	0.1	Acute endocarditis
I38	1	0.1	Endocarditis, valve unspecified
I49.9	1	0.1	Cardiac arrhythmia
I50.9	1	0.1	Cardiac failure, unspecified
I51.5	1	0.1	Myocardial degeneration
I51.7	4	0.3	Cardiomegaly
I51.8	1	0.1	Heart diseases
I61.9	3	0.2	Inter-cerebral haemorrhage
I62.0	1	0.1	Sub-dural haemorrhage (acute) (non-traumatic)
I70	1	0.1	Atherosclerosis
I72.4	1	0.1	Aneurysm of artery of lower extremity
I74.0	1	0.1	Embolism/thrombosis
I82.8	3	0.2	Embolism/thrombosis of other specified veins
R09.2	5	0.4	Cardio-respiratory failure/arrest

ICD-10	No. of cases (n = 1,382)	%	Description
J18.0 J18.1 J18.9 J46 J69.0 J96.9	5 1 1 1 1 3	0.4 0.1 0.1 0.1 0.1 0.2	<i>Diseases of the respiratory system</i> Bronchopneumonia Lobar pneumonia Pneumonia, unspecified Status asthmaticus/ acute severe asthma Aspiration pneumonia Respiratory depression or failure
B18.2 K72.9 K74.6 K76.0	1 1 2 2	0.1 0.1 0.1 0.1	<i>Diseases of the liver</i> Chronic viral hepatitis C Hepatic failure, unspecified Other & unspecified liver cirrhosis Fatty (change of) liver, not elsewhere classified
S02.9 S06.9 S09.9 S29.9 T07 T09.3 V89.2	1 2 5 1 12 2 1	0.1 0.1 0.4 0.1 0.9 0.1 0.1	<i>Injuries</i> Fracture of skull & facial bones, part unspecified Intra-cranial (brain) injury, unspecified Head injuries unspecified Injuries of the thorax, unspecified Multiple injuries, unspecified Injury of spinal cord, level unspecified Person injured in unspecified motor vehicle accident – traffic
W76 X70 Y20	12 13 1	0.9 0.9 0.1	<i>Hanging</i> Other accidental hanging and strangulation Intentional hanging Hanging, undetermined intent
T17.9 T71	5 2	0.4 0.1	<i>Asphyxia</i> Aspiration of gastric contents Asphyxiation including suffocation by strangulation, excludes J89, T17, T59
W66 W69 W70 X71	1 2 1 2	0.1 0.1 0.1 0.1	<i>Drowning & submersion</i> Whilst in bath tub Whilst in natural water Following fall into natural water Intentional drowning
B24 D73.5 F11.0 F19.1 G40.5 G40.9 G93.5 G97.8 K26 L02.2 N19 T30.0 T75.4 X00 X09 W19 R99	2 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 5	0.1 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.4	<i>Other</i> Unspecified HIV disease Infarction of spleen Intoxication - opiates Harmful use – multiple other Epileptic seizures related to alcohol & drugs Epileptic seizures Compression of brain Cerebral hypoxia, unspecified Duodenal ulcer Groin abscess Unspecified renal failure Burn of unspecified region, unspecified degree Electrocution Exposure to uncontrolled fire in building Inhalation of smoke and fumes Unspecified fall Unascertained

Where possible, causes of death have been grouped together in terms of the mechanisms of death. At present, although all causes of death on the death certificate (together with other information if available) are taken into consideration in classifying underlying cause of death, the principal cause of death is used here to allocate the ICD-10 code. In order to achieve a greater level of consistency, a hierarchical system was introduced for classifying the underlying cause of death using ICD-10 criteria for deaths involving multiple substances. Deaths that involve a combination of narcotics and other psychoactive drugs are coded as narcotic deaths. Where possible a code which specifies intentionality is used.

Annex AR2: np-SAD cases in 2005 by coroner's jurisdiction (16 years and over) and deaths in 2004 reported in 2005/6

Coroner's Jurisdiction & county district	np-SAD deaths Jan-Dec 2005	Annual death rate per 100,000 population ⁽¹⁾	np-SAD 2004 deaths reported in 2005/6 ⁽²⁾
Queen's Household	0	0.00	0
ENGLAND			
AVON	11	1.34	1
BEDFORDSHIRE	25	5.51	0
BERKSHIRE	1	0.16	0
BUCKINGHAMSHIRE			
Buckinghamshire	11	2.90	0
Milton Keynes	9	5.32	0
CAMBRIDGESHIRE			
North & East Cambridgeshire	7	5.31	1
Peterborough	3	2.39	1
South & West Cambridgeshire	2	0.59	0
CHESHIRE	19	2.38	2
CORNWALL			
Cornwall	2	0.47	0
Isles of Scilly	0	0.00	0
CUMBRIA			
North Eastern Cumbria	5	3.00	1
Southern Cumbria & Furness	7	4.93	0
Western Cumbria	5	5.19	0
DERBYSHIRE			
Derby & South Derbyshire	17	3.63	0
Scarsdale (including High Peak)	17	5.28	0
DEVON			
Exeter & Greater Devon	42	8.77	13
Plymouth & South West Devon	-	-	-
Torbay & South Devon	9	4.63	0
DORSET			
Bournemouth, Poole & Eastern Dorset	15	3.79	0
Western Dorset	3	1.63	0
DURHAM			
Darlington & South Durham	4	1.81	1
North Durham	4	1.52	2
EAST SUSSEX			
Brighton & Hove	51	24.22	2
East Sussex	4	0.99	1
ESSEX			
Essex & Thurrock	8	0.76	0
Southend & South East Essex	17	6.48	0
GLOUCESTERSHIRE			
Cheltenham	10	4.27	0
Gloucester	-	-	-

Coroner's Jurisdiction & county district	np-SAD deaths Jan-Dec 2005	Annual death rate per 100,000 population ⁽¹⁾	np-SAD 2004 deaths reported in 2005/6 ⁽²⁾
GREATER MANCHESTER			
Manchester	10	2.84	0
North Manchester	6	1.26	1
South Manchester	18	3.17	7
West Manchester	3	0.48	2
HAMPSHIRE			
Central Hampshire	11	4.05	0
North East Hampshire	11	3.58	0
Portsmouth & South East Hampshire	19	4.30	10
Southampton & New Forest	28	8.65	0
HEREFORDSHIRE	3	2.07	4
HERTFORDSHIRE	29	3.50	0
HUMBERSIDE			
East Riding & Hull	24	5.16	0
ISLE OF WIGHT	3	2.63	2
KENT			
Central & South East Kent	2	0.78	0
Mid Kent & Medway	5	2.40	1
North East Kent	-	-	-
North West Kent	-	-	-
LANCASHIRE			
Blackburn, Hyndburn & Ribble Valley	11	5.12	0
Blackpool & the Fylde	23	12.81	0
East Lancashire	19	9.95	4
Preston & West Lancashire	8	1.42	0
LEICESTERSHIRE			
Leicester City & South Leicestershire	-	-	-
Rutland & North Leicestershire	3	0.85	0
LINCOLNSHIRE			
Boston & Spalding	4	3.53	0
North Lincolnshire & Grimsby	3	1.20	12
Spilsby & Louth	1	0.80	1
Stamford	0	0.00	0
West Lincolnshire	11	5.26	1
LONDON			
City of London	0	0	0
Eastern London	18	2.08	4
Inner North London	35	5.34	27
Inner South London	57	7.13	4
Inner West London	11	1.48	0
Northern London	49	4.67	3
Southern London	20	2.42	7
Western London	71	6.87	51
MERSEYSIDE			
Knowsley, St Helens & Sefton	16	3.29	6
Liverpool	34	9.40	0
Wirral	12	4.78	0
NORFOLK			
Great Yarmouth	-	-	-
King's Lynn	4	3.50	0
Norwich & Central Norfolk	25	5.17	12
NORTHAMPTONSHIRE	20	3.89	22

Coroner's Jurisdiction & county district	np-SAD deaths Jan-Dec 2005	Annual death rate per 100,000 population ⁽¹⁾	np-SAD 2004 deaths reported in 2005/6 ⁽²⁾
NORTHUMBERLAND			
North Northumberland	5	5.29	2
South Northumberland	-	-	-
NORTH YORKSHIRE			
North Yorkshire Eastern	6	3.00	0
North Yorkshire Western	6	2.21	1
York	6	3.90	10
NOTTINGHAMSHIRE	14	1.67	0
OXFORDSHIRE	5	1.00	2
SHROPSHIRE			
Mid & North Shropshire	7	4.48	2
South Shropshire	1	1.27	-
The Wrekin	3	2.37	0
SOMERSET			
Eastern Somerset	3	1.42	0
Western Somerset	9	4.41	1
SOUTH YORKSHIRE			
South Yorkshire East	13	3.00	1
South Yorkshire West	37	6.19	1
STAFFORDSHIRE			
South Staffordshire	10	2.08	1
Stoke-on-Trent & North Staffordshire	12	3.24	0
SUFFOLK			
Greater Suffolk	15	4.00	3
Lowestoft	5	2.83	0
SURREY	12	1.39	1
TEESSIDE			
Hartlepool	3	4.21	-
Teesside	10	2.71	1
TYNE & WEAR			
Gateshead & South Tyneside	11	3.96	0
Newcastle-upon-Tyne	6	2.71	16
North Tyneside	-	-	-
Sunderland	1	0.44	1
WARWICKSHIRE	6	1.41	2
WEST MIDLANDS			
Birmingham	18	1.94	0
Black Country	10	1.49	1
Coventry	5	2.06	0
Wolverhampton	9	4.70	5
WEST SUSSEX	26	4.20	0
West YORKSHIRE			
West Yorkshire Eastern	53	6.31	1
West Yorkshire Western	27	3.23	1
WILTSHIRE	5	1.00	3
WORCESTERSHIRE	12	2.68	1

Coroner's Jurisdiction & county district	np-SAD deaths Jan-Dec 2005	Annual death rate per 100,000 population ⁽¹⁾	np-SAD 2004 deaths reported in 2005/6 ⁽²⁾
WALES			
Bridgend & Glamorgan Valleys	5	1.50	6
Cardiff & the Vale of Glamorgan	3	0.85	0
Carmarthenshire	7	4.86	0
Central North Wales	-	-	-
Ceredigion	5	7.66	0
Gwent	3	0.68	0
Neath & Port Talbot	9	8.17	0
North East Wales	-	-	-
North West Wales	9	5.94	0
Pembrokeshire	3	3.18	0
Powys	3	2.82	0
Swansea	-	-	-
NORTHERN IRELAND			
Northern Ireland	-	-	-
THE ISLANDS			
GUERNSEY	3	6.13	0
JERSEY	3	4.17	0
ISLE OF MAN	7	11.31	0
SCOTLAND			
Dumbarton	13	13.40	0

Please note that (0) refers to either no drug-related deaths or death rates of less than 0.01, whilst (-) indicates that no reports were submitted for the specific period from that jurisdiction or area. In subsequent reports these rates may increase as more inquests on deaths in 2004 are held and/or notified to the np-SAD. These rates should therefore be regarded as minimum rates.

(1) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question. However, the areas covered by 28 of the coroners' jurisdictions in England and Wales are not co-terminous with these boundaries and cover parts of such areas (see Appendix 1). Where administrative areas are split between jurisdictions, the estimated population has been divided into two or three as applicable. However, this means that the population of some coroners' jurisdictions may be either over- or under-estimated. It is necessary to make such assumptions until more accurate figures can be obtained or calculated.

(2) Notified after the publication of the np-SAD Annual Report, 2005.

Annex AR3: Changes in annual death rate per 100,000 population for np-SAD cases (16 years old and over), and annual percentage of all inquests held, 2004 and 2005

Coroner's Jurisdiction & county district	Number of np-SAD deaths 2004	Annual death rate per 100,000 population 2004 ⁽¹⁾	Annual % of all inquests held in 2004 ⁽²⁾	Number of np-SAD deaths 2005	Annual death rate per 100,000 population 2005 ⁽¹⁾	Annual % of all inquests held in 2005 ⁽²⁾
Queen's Household	0	0.00	0.00	0	0.00	0.00
ENGLAND						
AVON	22	2.69	4.24	11	1.34	2.04
BEDFORDSHIRE	27	5.95	14.29	25	5.51	12.56
BERKSHIRE	5	0.78	1.78	1	0.16	0.38
BUCKINGHAMSHIRE						
Buckinghamshire	10	2.64	6.02	11	2.90	6.11
Milton Keynes	4	2.36	3.74	9	5.32	9.78
CAMBRIDGESHIRE						
North & East Cambridgeshire	4	3.03	4.60	7	5.31	11.67
Peterborough	5	3.99	5.68	3	2.39	3.13
South & West Cambridgeshire	13	3.85	6.81	2	0.59	1.01
CESHIRE	27	3.38	5.17	19	2.38	3.70
CORNWALL						
Cornwall	2	0.47	0.59	2	0.47	0.60
Isles of Scilly	0	0.00	0.00	0	0.00	0.00
CUMBRIA						
North Eastern Cumbria	11	6.59	8.27	5	3.00	4.63
Southern Cumbria & Furness	4	2.82	2.44	7	4.93	5.34
Western Cumbria	1	1.04	1.47	5	5.19	6.94
DERBYSHIRE						
Derby & South Derbyshire	16	3.42	6.90	17	3.63	6.32
Scarsdale (including High Peak)	16	4.97	6.35	17	5.28	7.46
DEVON						
Exeter & Greater Devon	30	6.26	8.88	42	8.77	12.24
Plymouth & South West Devon	-	-	-	-	-	-
Torbay & South Devon	1	0.51	0.69	9	4.63	10.00
DORSET						
Bournemouth, Poole & Eastern Dorset	21	5.31	12.28	15	3.79	9.87
Western Dorset	5	2.72	5.75	3	1.63	3.61
DURHAM						
Darlington & South Durham	8	3.62	6.35	4	1.81	2.40
North Durham	6	2.27	2.41	4	1.52	1.61
EAST SUSSEX						
Brighton & Hove	47	22.32	27.65	51	24.22	26.42
East Sussex	24	5.93	7.67	4	0.99	1.34

Coroner's Jurisdiction & county district	Number of np-SAD deaths 2004	Annual death rate per 100,000 population 2004 ⁽¹⁾	Annual % of all inquests held in 2004 ⁽²⁾	Number of np-SAD deaths 2005	Annual death rate per 100,000 population 2005 ⁽¹⁾	Annual % of all inquests held in 2005 ⁽²⁾
ESSEX						
Essex & Thurrock	12	1.14	2.86	8	0.76	1.80
Southend & South East Essex	4	1.42	3.51	17	6.48	15.04
GLOUCESTERSHIRE						
Cheltenham	2	0.85	1.31	10	4.27	6.25
Gloucester	4	1.75	3.33	-	-	-
GREATER MANCHESTER						
Manchester	4	1.14	0.76	10	2.84	2.20
North Manchester	21	4.42	5.38	6	1.26	1.96
South Manchester	29	5.11	5.19	18	3.17	2.74
West Manchester	11	1.75	2.59	3	0.48	0.65
HAMPSHIRE						
Central Hampshire	14	5.16	10.45	11	4.05	7.80
North East Hampshire	18	5.86	18.18	11	3.58	9.73
Portsmouth & South East Hampshire	31	7.01	11.19	19	4.30	8.60
Southampton & New Forest	25	7.72	12.82	28	8.65	12.17
HEREFORDSHIRE	4	2.76	5.80	3	2.07	4.29
HERTFORDSHIRE	44	5.31	11.31	29	3.50	7.75
HUMBERSIDE						
East Riding & Hull	18	6.77	6.47	24	5.16	6.80
ISLE OF WIGHT	2	1.75	3.28	3	2.63	4.92
KENT						
Central & South East Kent	7	2.72	4.00	2	0.78	1.12
Mid Kent & Medway	15	7.19	6.64	5	2.40	2.60
North East Kent	-	-	-	-	-	-
North West Kent	-	-	-	-	-	-
LANCASHIRE						
Blackburn, Hyndburn & Ribble Valley	6	2.79	3.51	11	5.12	6.32
Blackpool & the Fylde	20	11.14	14.93	23	12.81	20.18
East Lancashire	19	9.95	13.87	19	9.95	12.50
Preston & West Lancashire	27	4.80	7.63	8	1.42	2.68
LEICESTERSHIRE						
Leicester City & South Leicestershire	-	-	-	-	-	-
Rutland & North Leicestershire	5	1.42	2.73	3	0.85	2.01
LINCOLNSHIRE						
Boston & Spalding	3	2.65	4.29	4	3.53	5.80
North Lincolnshire & Grimsby	12	4.78	9.45	3	1.20	2.50
Spilsby & Louth	1	0.80	1.43	1	0.80	1.56
Stamford	0	0.00	0.00	0	0.00	0.00
West Lincolnshire	14	6.70	13.46	11	5.26	11.11
LONDON						
City of London	0	0.00	0.00	0	0.00	0.00
Eastern London	15	1.73	4.05	18	2.08	5.42
Inner North London	54	8.24	12.47	35	5.34	8.52

Coroner's Jurisdiction & county district	Number of np-SAD deaths 2004	Annual death rate per 100,000 population 2004 ⁽¹⁾	Annual % of all inquests held in 2004 ⁽²⁾	Number of np-SAD deaths 2005	Annual death rate per 100,000 population 2005 ⁽¹⁾	Annual % of all inquests held in 2005 ⁽²⁾
Inner South London	24	3.00	4.54	57	7.13	9.33
Inner West London	11	1.48	2.44	11	1.48	2.63
Northern London	40	3.81	9.32	49	4.67	12.93
Southern London	23	2.79	7.10	20	2.42	6.19
Western London	63	6.09	10.43	71	6.87	14.09
MERSEYSIDE						
Knowsley, St Helens & Sefton	25	5.14	9.96	16	3.29	6.67
Liverpool	57	15.77	13.19	34	9.40	7.80
Wirral	8	3.18	3.14	12	4.78	4.53
NORFOLK						
Great Yarmouth	-	-	-	-	-	-
King's Lynn	3	2.62	3.30	4	3.50	6.15
Norwich & Central Norfolk	48	9.93	19.20	25	5.17	10.46
NORTHAMPTONSHIRE	29	5.65	12.78	20	3.89	9.85
NORTHUMBERLAND						
North Northumberland	5	7.41	4.70	5	5.29	4.07
South Northumberland	5	3.11	4.20	-	-	-
NORTH YORKSHIRE						
North Yorkshire Eastern	2	1.00	1.61	6	3.00	4.76
North Yorkshire Western	10	3.69	7.19	6	2.21	4.29
York	10	6.50	9.35	6	3.90	5.66
NOTTINGHAMSHIRE	16	1.91	2.94	14	1.67	3.09
OXFORDSHIRE	10	2.00	3.65	5	1.00	1.98
SHROPSHIRE						
Mid & North Shropshire	6	3.84	6.45	7	4.48	7.53
South Shropshire	0	0.00	0.00	1	1.27	3.23
The Wrekin	4	3.16	7.55	3	2.37	4.92
SOMERSET						
Eastern Somerset	5	2.37	4.17	3	1.42	3.00
Western Somerset	12	5.88	10.00	9	4.41	7.44
SOUTH YORKSHIRE						
South Yorkshire East	12	2.77	3.54	13	3.00	4.29
South Yorkshire West	32	5.35	6.99	37	6.19	8.11
STAFFORDSHIRE						
South Staffordshire	25	5.21	7.06	10	2.08	3.08
Stoke-on-Trent & North Staffordshire	21	5.67	4.23	12	3.24	2.67
SUFFOLK						
Greater Suffolk	18	4.80	7.83	15	4.00	7.32
Lowestoft	6	3.39	8.22	5	2.83	9.80
SURREY	7	0.81	1.67	12	1.39	3.06
TEESSIDE						
Hartlepool	-	-	-	3	4.21	4.62
Teesside	23	6.24	6.22	10	2.71	3.15
TYNE & WEAR						
Gateshead & South Tyneside	15	5.39	8.43	11	3.96	8.03
Newcastle-upon-Tyne	21	9.49	6.10	6	2.71	1.83
North Tyneside	4	2.57	1.86	-	-	-
Sunderland	-	-	-	1	0.44	0.32

Coroner's Jurisdiction & county district	Number of np-SAD deaths 2004	Annual death rate per 100,000 population 2004 ⁽¹⁾	Annual % of all inquests held in 2004 ⁽²⁾	Number of np-SAD deaths 2005	Annual death rate per 100,000 population 2005 ⁽¹⁾	Annual % of all inquests held in 2005 ⁽²⁾
WARWICKSHIRE	6	1.41	2.63	6	1.41	3.37
WEST MIDLANDS						
Birmingham	27	2.91	2.90	18	1.94	2.08
Black Country	5	0.75	1.27	10	1.49	3.86
Coventry	4	1.65	2.47	5	2.06	3.33
Wolverhampton	9	4.70	6.57	9	4.70	8.33
WEST SUSSEX	31	5.01	9.12	26	4.20	7.60
West YORKSHIRE						
West Yorkshire Eastern	56	6.67	9.86	53	6.31	9.87
West Yorkshire Western	36	4.31	8.05	27	3.23	6.35
WILTSHIRE	10	2.00	3.61	5	1.00	1.95
WORCESTERSHIRE	25	5.36	7.64	12	2.68	3.93
WALES						
Bridgend & Glamorgan Valleys	14	4.19	5.30	5	1.50	2.03
Cardiff & the Vale of Glamorgan	1	0.28	0.32	3	0.85	1.34
Carmarthenshire	7	4.86	6.60	7	4.86	7.87
Central North Wales	-	-	-	-	-	-
Ceredigion	0	0.00	0.00	5	7.66	12.50
Gwent	9	2.04	4.39	3	0.68	1.90
Neath & Port Talbot	8	7.26	10.13	9	8.17	16.67
North East Wales	-	-	-	-	-	-
North West Wales	5	3.30	3.52	9	5.94	7.56
Pembrokeshire	2	2.12	3.08	3	3.18	4.05
Powys	1	0.94	1.47	3	2.82	3.70
Swansea	-	-	-	-	-	-
NORTHERN IRELAND						
Northern Ireland)	-	-	-	-	-	-
THE ISLANDS						
GUERNSEY	4	8.17	21.05	3	6.13	23.08
JERSEY	9	12.46	31.03	3	4.17	7.69
ISLE OF MAN	1	1.62	2.08	7	11.31	14.89
SCOTLAND						
Dumbarton	10	10.54	-	13	13.40	-

Please note that (0) refers to either no drug-related deaths or death rates of less than 0.01, whilst (-) indicates that no reports were submitted for the specific period from that jurisdiction or area. In subsequent reports these rates may increase as more inquests on deaths in 2004 are held and/or notified to the np-SAD. These rates should therefore be regarded as minimum rates.

- (1) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question. However, the areas covered by 28 of the coroners' jurisdictions in England and Wales are not co-terminous with these boundaries and cover parts of such areas (see Appendix 1). Where administrative areas are split between jurisdictions, the estimated population has been divided into two or three as applicable. However, this means that the population of some coroners' jurisdictions may be either over- or under-estimated. It is necessary to make such assumptions until more accurate figures can be obtained or calculated.
- (2) Inquests held on all ages.

Annex AR4: Drug-related deaths reported to the Scottish Crime and Drug Enforcement Agency, 2005

This section describes the pattern of drug-related deaths in Scotland. The Scottish Crime and Drug Enforcement Agency collate data on drug-related deaths obtained from Scottish police forces. Drug-related death cases are those that meet the definition used by the Association of Chief Police Officers (Scotland) – “where there is prima facie evidence of a fatal overdose of controlled drugs. Such evidence would be recent drug misuse, for example controlled drugs and/or a hypodermic syringe found in close proximity to the body and/or the person is known to the police as a drug misuser although not necessarily a notified addict.” Thus, most suicides in Scotland are excluded.

1. Demography

Notifications of 249 drug-related deaths occurring in 2005 were received by the SCDEA, covering the following police force areas: Central Scotland (3.6%); Dumfries & Galloway (1.6%); Fife (5.2%); Grampian (8.8%); Lothian & Borders (16.5%); Northern (2.4%); Strathclyde (53.8%); and Tayside 8%.

The majority (84%) of the cases were male (Table AR4.1). The median age at death was 34 years (semi-interquartile range = 6.0) (Figure AR4.1). The majority (90%) of cases were under 45 years. Where ethnicity was known, the majority were White (99%).

Table AR4.1: Demographic variables for SCDEA drug-related deaths, 2005

Variable	Category	No	%
Total		249	100.0
Gender	Male	210	84.5
	Female	39	15.5
Living arrangements	Alone	76	30.5
	With others	128	51.4
	No fixed abode	4	1.6
	Other	35	14.1
	Not known	6	2.4

2. Location of death

The majority of fatalities (86%) occurred at a defined residential address (i.e. the deceased's home address or other private residential address), 9% died in hospital and 5% died elsewhere (e.g. in a public place).

3. Cause(s) of death

The majority of fatalities (97%) were due to accidental poisoning. Deaths due to natural causes accounted for the remaining cases.

4. Substances implicated in death

4.1 All substances

Psychoactive drugs were not directly implicated in about 3% of cases (n = 7). Of the remaining 242 cases, the principal substances implicated were: heroin/morphine (57%); methadone (20%); alcohol in combination with other substances (18%); other opiates/opioid analgesics (13%); and cocaine (9%) (Table AR4.2).

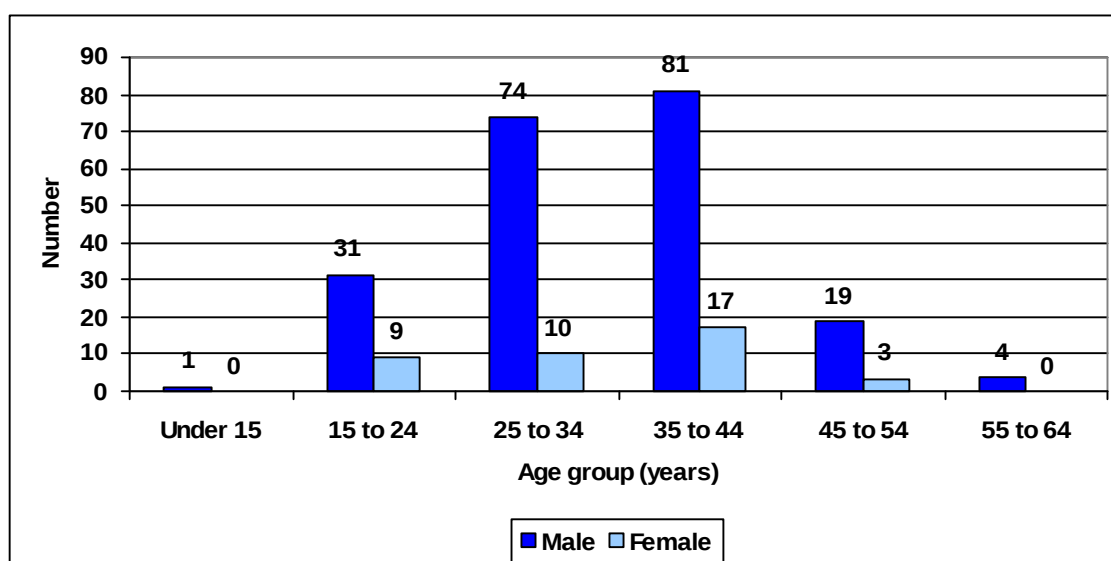
Figure AR4.1: SCDEA drug-related deaths, by age and gender, 2005

Figure AR4.2 takes into account data where one of the following drugs was known to be implicated: alcohol-in-combination; anti-depressants; cocaine; ecstasy-type drugs; heroin/morphine; hypnotics/sedatives; methadone; or other opiates/opioid analgesics.

4.2 Single substances

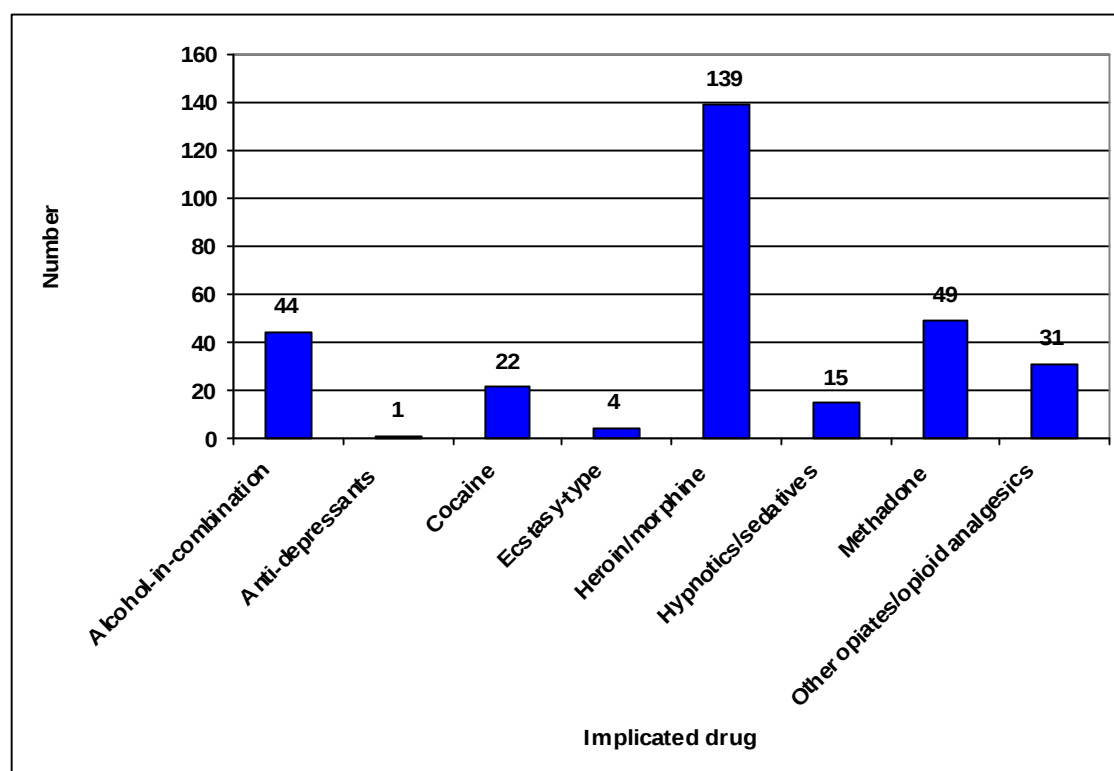
The following substances, as the sole implicated drug, accounted for 163 (67%) deaths where at least one drug was directly implicated: heroin/morphine (35%); methadone (13%); other opiates/opioid analgesics (9%); cocaine (5%); a hypnotic/sedatives (2%); amphetamines (1%); anti-depressants and ecstasy-type drugs (both 0.4%); and (Table AR4.2).

Table AR4.2: Psychoactive substances implicated in SCDEA drug-related deaths, 2005

Drug category	Number (%) of cases where no other substance was implicated	Number (%) of cases where drug was implicated
Total	242 (100.0)	242 (100.0)
Alcohol-in-combination	-	44 (18.2)
Amphetamines	3 (1.2)	5 (2.1)
Anti-depressants	1 (0.4)	1 (0.4)
Cocaine	12 (5.0)	22 (9.1)
Ecstasy-type drugs	1 (0.4)	4 (1.7)
Heroin/morphine	85 (35.1)	139(57.4)
Hypnotic/sedatives	4 (1.7)	15 (6.2)
Methadone	31 (12.8)	49 (20.2)
Other opiates/opioid analgesics	22 (9.1)	31 (12.8)

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.

Figure AR4.2: SCDEA drug-related deaths, by psychoactive drug implicated, 2005



5. Age and drug implicated in death

In cases aged 15 year and over, heroin/morphine was the most frequently

mentioned drug contributing to fatality (Table AR4.3).

Table AR4.3: Age and psychoactive drug implicated in SCDEA drug-related deaths, 2005

Age-group (years)	Number (%)	Drug category (alone or in combination) most frequently implicated in each age group
All ages	249 (100.0)	Heroin/morphine (57.4%)
14 & under	1 (0.1)	Methadone (1)
15-24	40 (12.5)	Heroin/morphine (57.5%)
25-34	84 (33.0)	Heroin/morphine (51.2%)
35-44	98 (30.4)	Heroin/morphine (62.2%)
45-54	22 (13.4)	Heroin/morphine (45.5%)
55-64	4 (6.4)	Heroin/morphine (2)

6. Gender and drug implicated in death

For both males and females, heroin/morphine was the most frequently mentioned drug, accounting for 58% and 44% of fatalities respectively. However, the pattern of other drug-specific fatality was somewhat different in male and female cases.

Among males, the most frequently mentioned drugs were: heroin/morphine (58%); alcohol-in-combination (20%); and methadone (18%). Furthermore, there are a higher proportion of cases of drug-specific fatality among males compared to females in respect of heroin/morphine (58% vs. 44%); alcohol-in-combination (20% vs. 15%); hypnotics/sedatives (6.7% vs. 2.6%); and ecstasy-type drugs (2% vs. 0).

Among female cases, the most frequently mentioned drugs were heroin/morphine (44%); methadone (31%) and other opiates/opioid analgesics. Compared to

male cases, female cases had a higher proportion of fatality associated with methadone (31% vs. 18%), other opiate/opioid analgesics (21% vs. 11%); and cocaine (10% vs. 9%). The only antidepressants fatality occurred in females.

7. Regional patterns

The number of drug-related deaths reported by police to the SCDEA and meeting the np-SAD case criteria fell from 312 in 2004 to 249 in 2005. This represents a decrease of 20%. Whilst most of this was due to reductions in the number reported for Strathclyde Police and Grampian Police, there were increases in the Lothian & Borders and Tayside police force areas (Table AR4.4). The 2004 rate in the Strathclyde police force area is on a par with the higher rates reported in England and Wales (except Brighton & Hove). However, there was a modest decrease in this area in 2005.

Table AR4.3: SCDEA deaths per 100,000 population, by police force area, 2004 and 2005

Police force area	Number of deaths 2004	Annual death rate per 100,000 population 2004 ⁽¹⁾	Number of deaths 2005	Annual death rate per 100,000 population 2005 ⁽¹⁾
Central Scotland Police	12	5.27	9	3.91
Dumfries & Galloway Constabulary	6	4.93	4	3.27
Fife Constabulary	13	4.51	13	4.48
Grampian Police	40	9.34	22	5.11
Lothian & Borders Police	32	4.35	41	5.52
Northern Constabulary	5	2.21	6	2.62
Strathclyde Police	188	10.48	134	7.45
Tayside Police	15	4.71	20	6.25
Scotland	312	7.53	249	5.98
(1) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question.				

Annex AR5: Drug-related deaths recorded by the General Register Office for Northern Ireland, 2005

This section describes the pattern of drug-related deaths in Northern Ireland. The General Register Office, Northern Ireland (GRONI), provided the data analysed in this section. Coroners in Northern Ireland routinely submit returns on drug-related deaths after conducting an inquiry, similar to that in England and Wales.

1. Demography

Notifications of 13 drug-related deaths occurring in 2005 were received from the GRONI which meet the np-SAD case criteria. The number of such deaths in 2004 was 36. However, the number of drug-

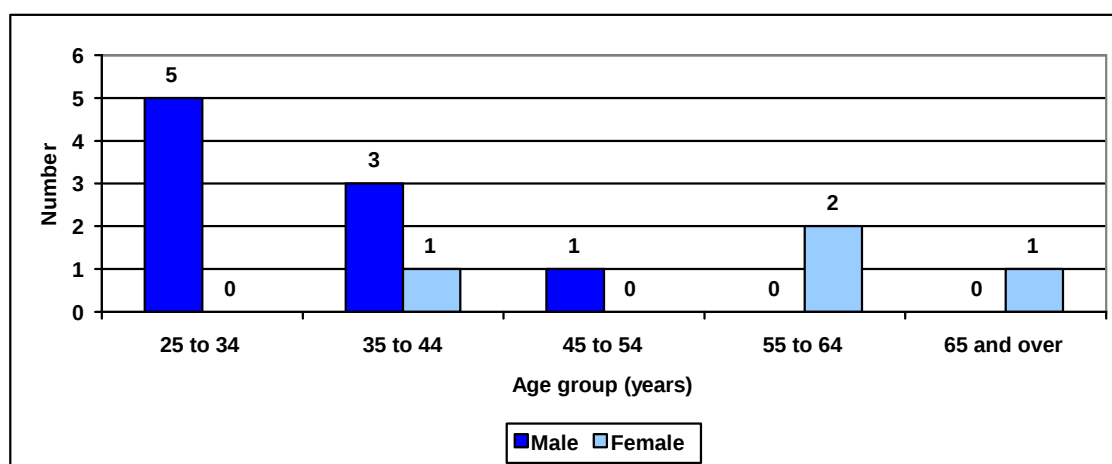
related deaths varies greatly from year to year in Northern Ireland. There is also a large backlog of inquests which means that further deaths for 2005 may be subsequently notified to the GRONI by coroners. In 2005 there was a rate of 0.97 drug-related deaths per 100,000 population aged 16 years and over, compared with 2.72 in 2004. These rates are low by comparison with the rest of the UK.

The majority (9/13) of the cases were male (Table AR5.1). The median age at death was 43 years (semi-interquartile range = 9.3) (Figure AR5.1). The majority (9/13) of cases were under 45 years.

Table AR5.1: Demographic variables for GRONI drug-related deaths meeting np-SAD criteria, UK, 2005

Variable	Category	Number (n = 13)
Gender	Male	9
	Female	4
Employment status	Employed	11
	Childcare/house person	1
	Not known	1

Figure AR5.1: GRONI drug-related deaths meeting np-SAD criteria, by age and gender, 2005



2. Location of death

The majority of fatalities (10/13) occurred at a defined residential address (i.e. the deceased's home address or other private residential address), two cases died in hospital while one case died elsewhere (e.g. in a public place).

3. Cause(s) of death

Eight cases died from accidental poisoning, four from intentional self-poisoning and one from natural causes.

4. Substances implicated in death

4.1 All substances

Psychoactive drugs were not directly implicated in one case. In the remaining 12 cases, the principal substances implicated were: other opiates/opioid analgesics (5);

hypnotics/sedatives (4); anti-depressants (3); heroin/morphine (3); alcohol in combination with other substances (2); amphetamines, cocaine, ecstasy-type drugs, and methadone (all 1) (Table AR5.2).

Figure AR5.2 takes into account data where one of the following drugs was known to be implicated: alcohol-in-combination; anti-depressants; cocaine; ecstasy-type drugs; heroin/morphine; hypnotics/sedatives; methadone; or other opiates/opioid analgesics.

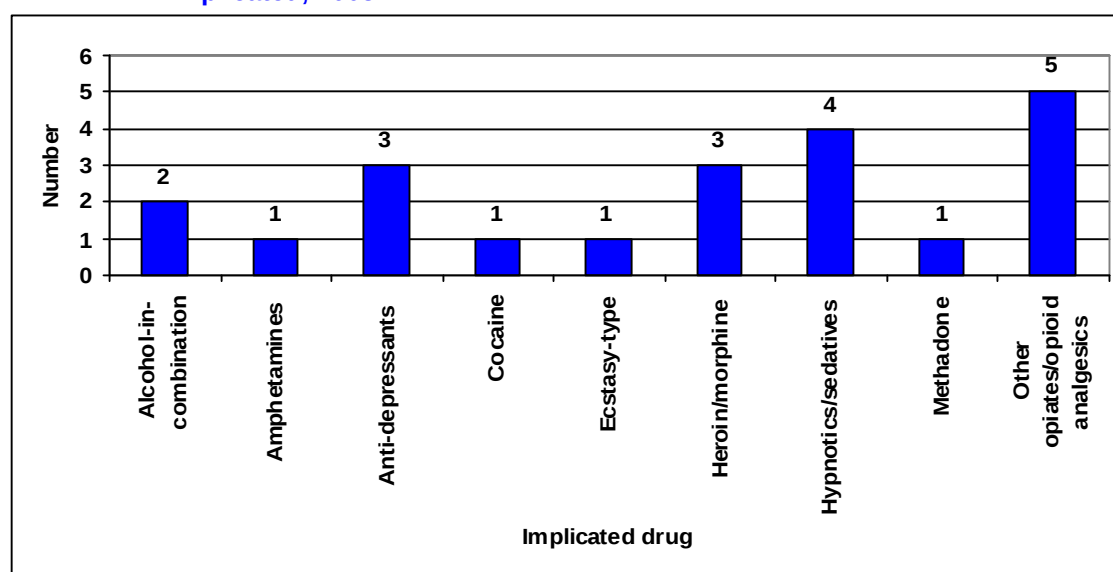
4.2 Single substances

The following substances, as the sole implicated drug, accounted for 4/12 deaths where at least one drug was directly implicated: other opiates/opioid analgesics (2); anti-depressants (1); and hypnotic/sedatives (1) (Table AR5.2).

Table AR5.2: Psychoactive substances implicated in GRONI deaths meeting np-SAD criteria, 2005

Drug category	Number of cases where no other substance was implicated (N = 12)	Number of cases where drug was implicated (N = 12)
Alcohol-in-combination	-	2
Amphetamines	0	1
Anti-depressants	1	3
Cocaine	0	1
Ecstasy-type drugs	0	1
Heroin/morphine	0	4
Hypnotic/sedatives	1	3
Methadone	0	1
Other opiates/opioid analgesics	2	5

Figure AR5.2: GRONI drug-related deaths meeting np-SAD criteria, by psychoactive drug implicated, 2005



5. Age and drug implicated in death

No drug-related death was observed in persons aged less than 25 years. In cases

aged 25-34 years, heroin/morphine was the most frequently mentioned drug contributing to fatality (Table AR5.3).

Table AR5.3: Age and psychoactive drug implicated in GRONI deaths meeting np-SAD criteria, 2005

Age-group (years)	Number (n = 13)	Drug category (alone or in combination) most frequently implicated in each age group
25-34	5	Heroin/morphine (3)
35-44	4	Other opiates/opioid analgesics (3)
45-54	1	(Natural causes)
55-64	2	Antidepressants (2)
65 & over	1	Other opiates/opioid analgesics (1) Hypnotics/sedatives (1)

6. Gender and drug implicated in death

The pattern of other drug-specific fatality was somewhat different in male and female cases.

Among males, the most frequently mentioned drugs were heroin/morphine (3/9); other opiates/opioid analgesics (3/9); alcohol-in-combination (2/9); and hypnotics/sedatives (2/9).

Among female cases, the drugs mentioned were other opiates/opioid analgesics (2/4) anti-depressants (2/4) and hypnotics/sedatives (2/4). Compared to male cases, female cases had a higher proportion of fatality associated with anti-depressants (2/4 vs. 1/9); other opiates/opioid analgesics (2/4 vs. 3/9); and hypnotics/sedatives (2/4 vs. 2/9). Furthermore, there were no fatalities due to heroin/morphine, alcohol-in-combination, methadone, cocaine, amphetamines and ecstasy-type drugs among females.

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np-SAD Surveillance Report No. 17
July – December 2005

Key Points

Surveillance Report No. 15: July - December 2005

- ◆ A total of 797 inquests into drug-related deaths were reported to the np-SAD for the period July to December 2005 by the end of June 2006. Information was submitted by 107 out of 120 coroners in England & Wales, as well as Guernsey, Jersey, the Isle of Man, together with one Procurator Fiscal in Scotland. This number of inquests represents an increase of 2.8% over the same period in 2004.
- ◆ The demographic profile remains consistent with that of previous reports. The majority of cases were males (74%), under the age of 45 years (74%), and White (94%).
- ◆ The principal underlying cause(s) of death were: accidental poisoning (40%); drug overdose (22%); poisoning of undetermined intent (13%); and intentional self-poisoning (12%).
- ◆ The following jurisdictions recorded the highest semi-annual drug-related death rate per 100,000 population aged 16 years and over: Brighton & Hove (12.4); Guernsey (6.1); North & Cambridgeshire (5.3); East Lancashire (5.4); Blackpool & the Fylde (5.0); Exeter & Greater Devon (5.0).
- ◆ Compared to the same period in 2004, the following changes were observed:
 - A 2.8% increase in the number of inquests into drug-related deaths
 - About 5% increase in inquests where death was due to heroin/morphine
 - About 23% increase in inquests where death was due to cocaine
 - About 25% increase in inquests relating to fatalities due to amphetamines
 - About 56% increase in inquests in which ecstasy-type drugs were implicated in death
 - About 4% decrease in the involvement of alcohol in inquests concerning drug-related deaths
 - About 8% decrease in inquests where death was due to methadone
 - About 18% decrease in inquests where hypnotics/ sedatives were implicated in death

XI Introduction

A total of 107 out of 120 coroners' jurisdictions in England and Wales provided returns for this surveillance report, which covers returns made to the np-SAD for the period July to December 2005, received before the end of June 2006. Some coroners did not provide 'nil returns' (confirmation from coroners that there were no inquests involving drug-related deaths for that period). In addition, coroners in Guernsey, Jersey and the Isle of Man, together with the Procurator Fiscal for Dumbarton in Scotland, contributed data during this period. No information relating to Northern Ireland or from the Scottish Drugs Enforcement Agency (SCDEA) is included in this surveillance report.

Overall, this report covers approximately 89% of jurisdictions in England and Wales, as well as the Isle of Man and Channel Islands. There are a number of possible reasons for not reporting. For example, the coroners' workload may prevent the notification of inquests, or there may be an assumption that a 'nil return' does not have to be reported. This highlights the importance of maintaining and resourcing a surveillance system to which coroners are willing and able to contribute on a continuous basis. There is also a need to provide appropriate training and resources to enable coroners to co-operate effectively with the requirements of a surveillance system.

XII Profile of cases

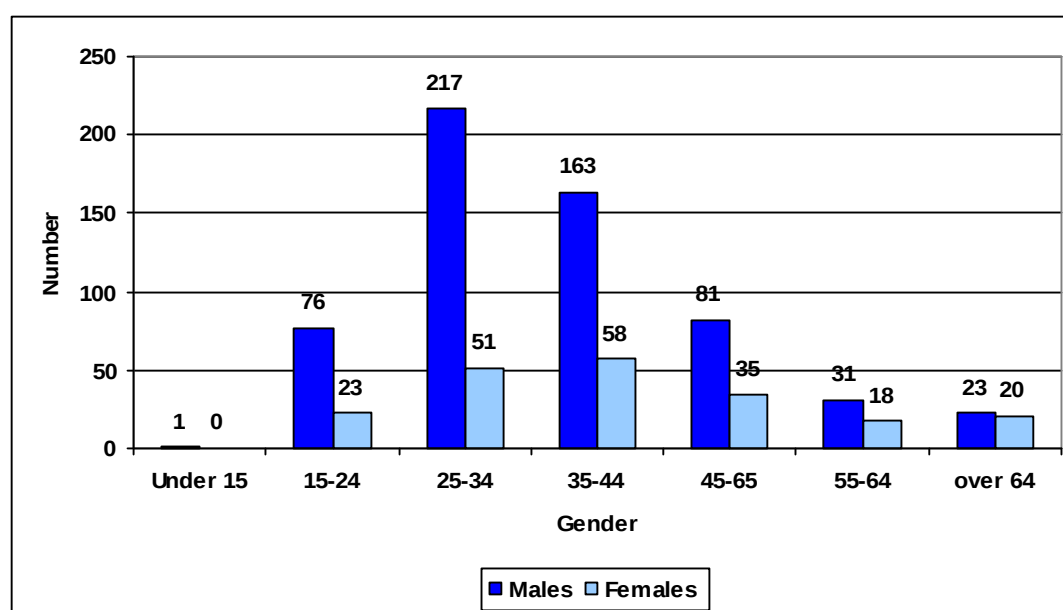
1. Demography

A total of 797 drug-related deaths were reported to the programme for the period July to December 2005. The majority of cases (74%) were male (n = 592). The majority of cases (74%) were aged less than 45 years. The median age at death

was 36.5 years (semi-interquartile range 8.2) (Figure 9). Where ethnicity was known, the vast majority of cases were White (93.7%); with the rest being described as Black (2.2%), Asian (1.8%), and Other (2.3%). Half (50%) of cases were unemployed. Approximately 46% of cases were living with others at the time of their death (Table 10).

Table 10: Demographic variables, np-SAD inquests, July-December 2005

Variable	Category	Number (%)
Total		797 (100.0)
Gender	Male	592 (74.3)
	Female	205 (25.7)
Employment status	Unemployed	402 (50.4)
	Employed	239 (30.0)
	Childcare/houseperson	20 (2.5)
	Student	19 (2.4)
	Retired/sickness/invalidity	72 (9.0)
	Other	1 (0.1)
	Not Known	44 (5.5)
Living arrangements	Alone	291 (36.5)
	With others	363 (45.6)
	No fixed abode	38 (4.8)
	Other	48 (6.0)
	Not known	57 (7.1)

Figure 9: np-SAD inquests by age and gender, July-December 2005

2. Drug-related death rates

The following jurisdictions recorded the highest semi-annual drug-related death rate per 100,000 population aged 16 years and over: Brighton & Hove (12.4); Guernsey (6.1); North & Cambridgeshire (5.3); East Lancashire (5.4); Blackpool & the Fylde (5.0); Exeter & Greater Devon (5.0) (Annex SR2). The highest proportions of drug-related cases expressed as a percentage of the total number of inquests held were: Guernsey (23.1%); Brighton & Hove (13.5%); North & East Cambridgeshire (11.7); Western London (9.7%); Blackpool & the Fylde (7.9%); Jersey (7.7%); Neath Port Talbot (7.4%); Southend & South East Essex (7.1%); Exeter & Greater Devon (7.0%).

3. Location of death

Location of death was reported in all but 5 cases. Where the location was known, 65% of cases died in a defined residence (i.e. the deceased's home address or other private residential address), 26% died in hospital and 9% died elsewhere (e.g. in a public place).

4. Underlying cause(s) of death

To enable comparison with various national and international data-sets all causes of death have been coded according to the International Classification of Diseases

(ICD-10). This is an international standard for the classification of diseases and health related problems published by the World Health Organisation (1992). The proportions of ICD-10 categories of underlying cause(s) of death were as follows:

- Accidental poisoning (X40-X47): 59.8%
- Intentional self-poisoning (X60-X67): 13.8%
- Poisonings of undetermined intent (Y10-Y14): 16.2%
- Other (e.g. natural causes, drowning, hanging, unascertained): 10.2%

5. Manner of death

The manner of death in these cases was considered to be as follows:

- Natural: 3.0%
- Accidental: 64.0%
- Suicidal: 15.7%
- Homicidal: 0.0%
- Undetermined: 16.2%
- Unclassified/not specified: 1.1%

6. Substances implicated in death (Table 11)

6.1 All substances

The principal substances implicated in fatalities were heroin/morphine (44%),

alcohol in combination with other substances (25%), other opiates/opioid analgesics (22%), anti-depressants (17%), hypnotic/sedatives (11%), methadone (11%), and cocaine (11%).

6.2 Single substances

The following substances, as the sole implicated drug, accounted for 372 (47%) deaths: heroin/morphine (21%); other opiates/opioid analgesics (8%); anti-depressants (6%); Cocaine (3%), and methadone (3%) (Table 11).

7. Prescribed psychoactive medication (Table 12)

Four hundred and forty-five cases were known to be receiving prescribed psychoactive medication at the time of their death. Prescribed medications were reported in the following proportions for these therapeutic drug classes: anti-depressants 49%; hypnotic/sedatives 42%; other opiates/opioid analgesics 25%; anti-psychotics 18%, methadone 14%; and anti-epileptics 10%. "Polypharmacy", i.e. multiple prescriptions of psychoactive drugs, occurred in 73% of these cases.

Table 11: Psychoactive substances implicated in death, np-SAD inquests, July-December 2005

Drug category	Number (%) of cases where no other substance implicated	Number (%) of cases where drug implicated
Total	791 (100.0)	791 (100.0)
Alcohol	-	194 (24.5)
Amphetamines	8 (1.0)	20 (2.5)
Anti-depressants	45 (5.7)	135 (17.1)
Anti-epileptics	6 (0.8)	18 (2.3)
Anti-psychotics	9 (1.1)	33 (4.2)
Cannabis	5 (0.6)	22 (2.8)
Cocaine	25 (3.2)	87 (11.0)
Ecstasy-type drugs	10 (1.3)	26 (3.3)
GHB	1 (0.1)	2 (0.3)
Heroin/morphine	168 (21.2)	350 (43.9)
Hypnotic/sedatives	9 (1.1)	90 (11.4)
Methadone	22 (2.8)	88 (11.1)
Other opiate/opioid analgesics	64 (8.1)	176 (22.2)

Note: Column totals may sum to more than 100% since more than one substance may be implicated in a death.

Table 12: Prescribed psychoactive medication, np-SAD inquests, July-December 2005

Drug category	Number (%) of cases on prescribed psychoactive medication	Number (%) of cases where same drug implicated in death
Total	445 (100.0)	
Amphetamines	1 (0.2)	1 (100.0)
Anti-depressants	216 (48.5)	101 (46.8)
Anti-epileptics	45 (10.1)	10 (22.2)
Anti-psychotics	81 (18.2)	22 (27.2)
Heroin/morphine	7 (1.6)	2 (28.6)
Hypnotic/sedatives	186 (41.8)	54 (29.0)
Methadone	61 (13.7)	32 (52.5)
Other opiates/opioid analgesics	109 (24.5)	68 (62.4)

Note: Column totals may sum to more than 100% since more than one substance may be prescribed to an individual and more than one substance may be implicated in a death.

XIII Associated risks

1. Prescribed psychoactive drugs

Of the 445 cases prescribed psychoactive medication (56% of cases) at the time of their death, 67.2% had those drugs implicated in their death (Table 12).

1.1 Methadone

Methadone, alone and in combination with other drugs, was implicated in 88 cases. Of these, 66% may have obtained methadone illicitly, compared to the 34% who were known to be receiving prescribed methadone prior to their death (Percentage Ratio (PR): = 1.8, 95% Confidence Interval (CI) = 1.3 - 2.5).

Methadone alone was implicated in 22 cases. Of these, 64% may have obtained methadone illicitly, whilst 36% were prescribed the drug (Percentage Ratio (PR): = 1.8, 95% Confidence Interval (CI) = 0.9 – 3.3).

More methadone deaths seem to have arisen from illicit sources than from prescription sources. Altogether, methadone-related deaths still appear to more likely to arise from illicit than prescribed methadone.

1.2 Anti-depressants

Anti-depressants, alone and in combination with other drugs, were implicated in 135 cases. Of these, 75% were known to be receiving prescribed antidepressants at the time of their death, compared to 25% who used drugs that may have been prescribed for others (PR = 3.0, 95% CI = 2.2 – 4.0).

Anti-depressants alone were implicated in 45 cases. Of these, 80% were known to be receiving prescribed medication, compared to 20% who had used drugs that may have been prescribed for others (PR = 4.0, 95% CI = 2.2 – 7.3).

This indicates that those receiving prescribed anti-depressants were significantly more likely to have that class of drug implicated in their death, either in combination or as the sole drug.

1.3 Other opiates/opioid analgesics

Other opiates/opioid analgesics (e.g. dihydrocodeine, dextropropoxyphene) alone and in combination with other drugs, were implicated in 176 cases. Of these, 61% may have obtained the drug by other means, compared to the 39% who were known to be receiving prescribed opiates/opioid analgesics prior to their death (PR = 2.0, 95% CI = 1.7 – 2.5).

Other opiates/opioid analgesics alone were implicated in 64 cases. Of these, the drugs were known to be prescribed in 50% of cases and could have been obtained by other means in 50% of cases.

The risk of fatality from other opiate/opioid analgesics was equally likely to occur in those prescribed these drugs and in those who obtained them from other sources.

1.4 Hypnotic/sedatives

Hypnotic/sedatives, alone and in combination with other drugs, were implicated in 90 cases. Of these, 60% were known to be receiving a prescription for this class of drug, compared to 40% who could have obtained them illicitly (PR = 1.5, 95% CI = 1.1 – 2.0).

Nine cases had hypnotic/sedatives alone implicated in their death, seven of whom had received this drug category via prescription.

2. Gender and underlying cause(s) of death

Males were more likely than females to die of accidental poisoning (65.1% vs. 44.2%) (PR = 1.5, 95% CI = 1.3 – 1.7). Females, by contrast, were more likely than males to die of intentional self-poisoning (23.8% vs. 10.5%) (PR = 2.3, 95% CI = 1.6 – 3.2), and poisoning of undetermined intent (21.8% vs. 10.8%) (PR = 1.5, 95% CI = 1.1 – 2.1).

3. Gender and manner of death

A similar pattern is exhibited with regard to manner of death. Males were more likely than females to die an accidental death (69.9% vs. 47.1%) (PR = 1.5, 95% CI = 1.3 – 1.7). Conversely, females were more likely than males to die a suicidal death

(26.2% vs. 12.0) (PR = 2.2, 95% CI = 1.6 – 3.0, or a death where the manner was undetermined (21.4% vs. 14.4%) (PR = 1.5, 95% CI = 1.1 – 2.1).

4. Age and underlying cause(s) of death

Those aged less than 45 years were more likely than older individuals to die of accidental poisoning (68.7% vs. 35.2%) (PR = 2.0, 95% CI = 1.6 – 2.4). Those aged 45 years or over, by contrast, were more likely than younger individuals to die of intentional self-poisoning (29.5% vs. 8.2%) (PR = 3.6, 95% CI = 2.6 – 5.1), and poisoning of undetermined intent (25.2% vs. 12.9%) (PR = 2.0, 95% CI = 1.4 – 2.7).

5. Age and manner of death

A similar pattern is exhibited with regard to manner of death. Those aged less than 45 years were more likely than older individuals to die an accidental death (72.7% vs. 39.5%) (PR = 1.8, 95% CI = 1.6 – 2.2). Conversely, those aged 45 years or over were more likely than younger individuals to die a suicidal death (31.4% vs. 10.1) (PR = 3.1, 95% CI = 2.3 – 4.3), or a death where the manner was undetermined (23.8% vs. 13.5%) (PR = 1.8, 95% CI = 1.3 – 2.4).

Table 13: Age and psychoactive drug implicated in death, np-SAD inquests, July–December 2005

Age group (years)	Number (%)	Drug category (alone or in combination) most frequently implicated with age group
Total	739 (100.0)	
Under 15	1 (0.1)	Methadone (1)
15 – 24	93 (12.6)	Heroin/morphine (47.5%)
25 – 34	255 (34.5)	Heroin/morphine (60.4%)
35 – 44	205 (27.7)	Heroin/morphine (46.2%)
45 – 54	103 (13.9)	Other opiates/opioid analgesics (32.8%)
55 – 64	43 (5.8)	Other opiates/opioid analgesics (42.9%)
65 and over	39 (5.3)	Other opiates/opioid analgesics (41.9%)

6. Age and drug implicated in death

The most frequently implicated drugs among cases aged 44 years and under were opiates, notably heroin/morphine (53%), other opiates/opioid analgesics (17%), and methadone (13%). Alcohol-in-combination (26%) also featured prominently. Other opiates/opioid analgesics (37%), anti-depressants (25%), alcohol-in-combination (20%), and heroin/morphine (19%) were most frequently implicated in cases aged over 45 years (Table 13).

7. Gender and drug implicated in death

The following substances, alone or in combination with substances, were implicated in deaths as below.

Male: heroin/morphine 52%; alcohol-in-combination 25%; other opiates/opioid analgesics 19%; cocaine 12%; anti-depressants 12%; methadone 12%, and hypnotic/sedatives 11% of cases.

Female: anti-depressants 31%; other opiates/opioid analgesics 31%; heroin/morphine 22%; alcohol-in-combination 21%; methadone 12%; and hypnotic/sedatives 11% of cases.

XIV Drug abuse/dependence

Cases with a history of drug abuse/dependence ($n = 413$) were compared to those without such a history ($n = 247$) on the following variables: demography, location of death, underlying cause(s) and manner of death. One hundred and thirty-seven cases (17%) were reported as 'not known' with respect to history of drug abuse/dependence. They were excluded from further analysis.

1. Demography

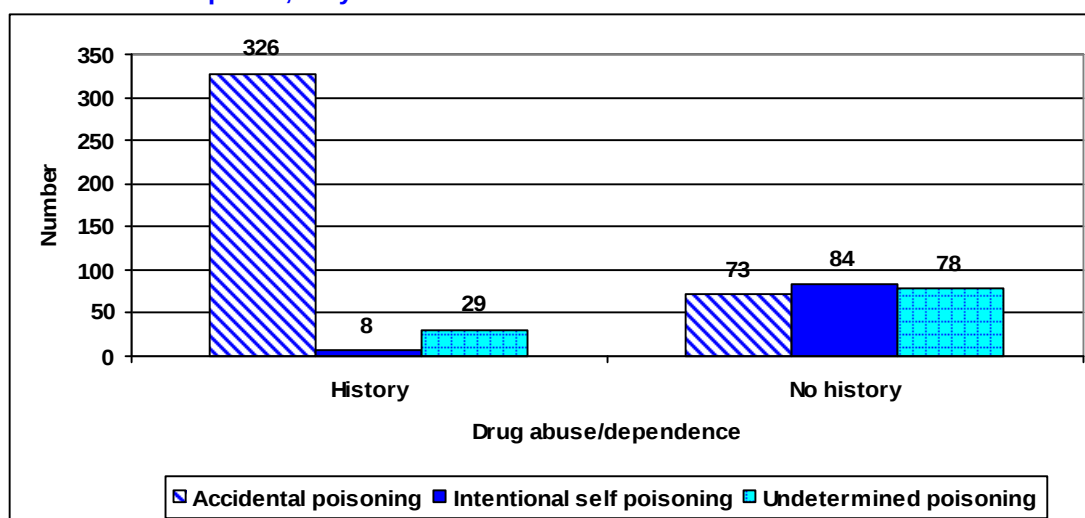
In comparison with non-drug abusers (NDAs: 57%), drug abusers/dependents (DAs: 84%) were more likely to be male ($PR = 1.5$, 95% $CI = 1.3 - 1.6$) and more likely to be less than 45 years of age, 86% vs. 53%

($PR = 1.6$, 95% $CI = 1.4 - 1.8$). The median age at death for DAs was 34.2 years (semi-interquartile range 5.7), while that for NDAs was 44.3 years (semi-interquartile range 11.8) (Mann-Whitney $U = 31757.0$, $p < 0.0005$).

2. Location of death

The majority of both DAs and NDAs died at a defined residential address, although this proportion was higher amongst the second group: DAs = 60%; NDAs = 72% ($PR = 1.2$, 95% $CI = 1.1 - 1.3$). Drug addicts were more likely to die in hospital (27%), than non drug addicts (22%) ($PR = 1.2$, 95% $CI = 0.9 - 1.6$).

Figure 10: Principal underlying cause(s) of death by drug abuse/dependence history, np-SAD inquests, July–December 2005



3. Underlying cause(s) of death (Figure 10)

DAs were more likely than NDAs to die of accidental poisoning (79.6% vs. 29.2%) ($PR = 2.7$, 95% $CI = 2.2 - 3.3$) – Figure 10. NDAs, by contrast, were more likely than DAs to die of intentional self-poisoning (33.6% vs. 1.9%) ($PR = 17.3$, 95% $CI = 8.5 - 35.0$), and poisoning of undetermined intent (31.2% vs. 7.1%) ($PR = 4.4$, 95% $CI = 3.0 - 6.6$).

4. Manner of death

A similar pattern is exhibited with regard to manner of death. DAs were more likely than NDAs to die an accidental death (83.7% vs. 32.8%) ($PR = 2.6$, 95% $CI = 2.1 - 3.1$). Conversely, NDAs were more likely than DAs to die a suicidal death (35.6% vs. 3.6%) ($PR = 9.8$, 95% $CI = 5.8 - 16.5$), or a death where the manner was undetermined (28.4% vs. 8.0%) ($PR = 3.5$, 95% $CI = 2.4 - 5.2$).

XV Commentary

The increase of 3.8% in the number of inquests notified during this surveillance period compared to the corresponding one in 2004 probably reflects increased compliance. The increase in inquests reported does not contradict the decrease in 2005 deaths noted in the Annual Report. A more pro-active approach to data collection and submission by the Programme has almost certainly led to the improved compliance rate.

The demographic profile of inquests reported remains consistent with previous reports. For the period of this report, the majority of subjects of these inquests were males (74%), under the age of 45 years (74%), and White (94%). Where the information was available, 63% of cases were drug abusers/dependents, as defined by the Programme.

One aim of the Programme is to provide early warning through surveillance of high-risk populations. For the period July to December 2005, Brighton & Hove recorded the highest semi-annual death rate (12.4/100,000).

Previous reports have highlighted areas with marked changes in semi-annual death rates and noted that the validity of these changes could only be commented on through continued monitoring. Those areas are revisited in this report as well as newly identified areas where death rates have fluctuated (Annex SR3).

Jurisdictions that stood out from others in this report as a result of an increase in the number of reported cases since the previous comparable reporting period (July-December 2004) (which led to increased semi-annual death rates since the previous reporting period) were: Torbay & South Devon (from 0.5 to 2.6/100,000 population); Inner South London (0.9 to 4.3); Wirral (1.2 to 3.2); North & Eastern Cambridgeshire (1.5 to 5.3); and Exeter & Greater Devon (2.9 to 5.0).

Conversely, the jurisdictions which reported a marked decline in the number of cases reported since the previous comparable 6-month period (which resulted in a decline in their semi-annual death rates) were: Bournemouth, Poole & East Dorset (from

3.0 to 1.5/100,000 population); Western Dorset (2.2 to 0.5); Gateshead & South Tyneside (4.0 to 1.8); Bedfordshire (4.9 to 2.6); Darlington & South Durham (4.1 to 1.8); South & West Cambridgeshire 92.4 to 0.0); Liverpool (7.5 to 4.7); East Sussex (3.7 to 0.7); Mid Kent & Medway (5.8 to 2.4); Carmarthenshire (4.2 to 0.7); Preston & West Lancashire (3.9 to 0.4); and Jersey (9.7 to 4.2). Looking at the trends over a longer period, it can be seen that the mortality rates in Mid Kent & Medway have varied from 1.0 to 5.8/100,000 population and now the semi-annual death rate is 2.4/100,000. In East Lancashire rates had varied between 5.2 and 7.9 and now the rate is 2.6/100,000. In Liverpool the rate varied from 3.3 to 7.7, but is now 4.7/100,000.

The semi-annual death rate in Central Manchester fell over the period January-June 2003 to July-December 2005 from 5.8 to 0.3/100,000 population. Similar falls were experienced in Carmarthenshire (from 5.2 to 0.7); Inner North London (6.6 to 3.8); Preston & West Lancashire (3.0 to 0.4); South & west Cambridgeshire (2.6 to 0.0); East Lancashire (7.8 to 5.2); North Northumberland 96.7 to 4.2; Isle of Wight (4.6 to 2.6); Avon 92.8 to 0.9); and Inner West London (2.7 to 0.7); and Isle of Wight (4.6 to 2.6). In East Sussex the rate rose from 1.1 to 4.4 but is now 2.1; in Western Cumbria the rate rose from 1.8 to 5.7 before falling to 0.7.

Areas showing increases in semi-annual death rates over the last six surveillance periods are: North & East Cambridgeshire (0.8 to 5.3/100,000 population); Milton Keynes (0.0 to 3.5); Exeter & Greater Devon (2.0 to 5.0); Neath Port Talbot (1.0 to 3.6); Blackburn, Hyndburn & Ribble Valley (1.5 to 4.2); and Central Hampshire (0.4 to 2.6).

In general, it would seem that local prevention initiatives in these areas are yielding some positive outcomes. However, it should be noted that such changes might be an artefact of other factors which affect the way in which inquests are processed, e.g. prolonged investigations, increased workload, etc.

While the pattern of other drug-specific mortality remains stable, comparisons

between July to December 2005 and the same period in 2004 revealed the following noticeable changes:

- A 2.8% increase in the number of inquests into drug-related deaths
- About 5% increase in inquests where death was due to heroin/morphine
- About 23% increase in inquests where death was due to cocaine
- About 25% increase in inquests relating to fatalities due to amphetamines
- About 56% increase in inquests in which ecstasy-type drugs were implicated in death
- About 4% decrease in the involvement of alcohol in inquests concerning drug-related deaths
- About 8% decrease in inquests where death was due to methadone
- About 18% decrease in inquests where hypnotics/ sedatives were implicated in death

These changes reveal a reversal of the trend noted in the surveillance report for the same period in 2004, i.e. of a decreasing trend in fatalities due to polydrug use involving combinations of opiates, cocaine and ecstasy-type drugs. These trends of increasing polydrug fatalities being investigated at inquest in the second half of 2005, particularly in the use of heroin/morphine, are in line with the findings for heroin/morphine deaths occurring in 2005.

Annex SR1: np-SAD cases reported in July-December 2005 by underlying cause(s) of death

ICD-10	No. of cases (n = 797)	%	Description
X40	1	0.1	<i>Accidental poisoning</i> Non-opioid analgesics, antipyretics and anti-rheumatics
X41	45	5.6	Anti-epileptic, sedative-hypnotic, anti-parkinsonism and psychotropic drugs, not elsewhere classified
X42	418	52.4	Narcotics and psychodysleptics (hallucinogens), not elsewhere classified
X43	1	0.1	Other drugs acting on the autonomic nervous system
X44	7	0.9	Other and unspecified drugs, medicaments and biological substances
X45	4	0.5	Alcohol
X47	1	0.1	Gases and vapours
X60	2	0.3	<i>Intentional self-poisoning</i> Non-opioid analgesics, antipyretics and anti-rheumatics
X61	46	5.8	Anti-epileptic, sedative-hypnotic, anti-parkinsonism and psychotropic drugs, not elsewhere classified
X62	59	7.4	Narcotics and psychodysleptics (hallucinogens), not elsewhere classified
X64	3	0.4	Other and unspecified drugs, medicaments and biological substances
Y10	2	0.3	<i>Poisoning of undetermined intent</i> Non-opioid analgesics
Y11	51	6.4	Anti-Parkinsonism drugs
Y12	68	8.5	Narcotics/psychodysleptics
Y14	4	0.5	Other and unspecified drugs
Y15	4	0.5	Alcohol
I20-I25	1	0.1	<i>Cardiovascular system – diseases, defects or conditions affecting</i> Ischaemic heart diseases
I25.1	2	0.3	Atherosclerotic heart disease
I33	1	0.1	Acute endocarditis
I38	1	0.1	Endocarditis, valve unspecified
I42.6	1	0.1	Alcoholic cardiomyopathy
I51.4	1	0.1	Myocarditis, unspecified
I61.9	1	0.1	Inter-cerebral haemorrhage
I62.0	1	0.1	Sub-dural haemorrhage (acute) (non-traumatic)
I72.4	1	0.1	Aneurysm of artery of lower extremity
I74.0	1	0.1	Embolism/thrombosis
I82.8	1	0.1	Embolism/thrombosis of other specified veins
R09.2	1	0.1	Cardio-respiratory failure/arrest

ICD-10	No. of cases (n = 797)	%	Description
J18.0 J18.1 J46 J69.0	3 1 1 1	0.4 0.1 0.1 0.1	<i>Diseases of the respiratory system</i> Bronchopneumonia Lobar pneumonia Status asthmaticus/ acute severe asthma Aspiration pneumonia
B18.2 K72.9 K76.0	1 1 2	0.1 0.1 0.3	<i>Diseases of the liver</i> Chronic viral hepatitis C Hepatic failure, unspecified Fatty (change of) liver, not elsewhere classified
S06.9 S09.9 T07 V04.1	1 3 11 1	0.1 0.4 1.4 0.1	<i>Injuries</i> Intra-cranial (brain) injury, unspecified Head injuries unspecified Multiple injuries, unspecified Pedestrian injured in collision with heavy transport
W76 X70	5 7	0.6 0.9	<i>Hanging</i> Other accidental hanging and strangulation Intentional hanging
T17.9 T71	1 2	0.1 0.3	<i>Asphyxia</i> Aspiration of gastric contents Asphyxiation including suffocation by strangulation, excludes J89, T17, T59
W69 X71	1 1	0.1 0.1	<i>Drowning & submersion</i> Whilst in natural water Intentional self harm
B24 F19.0 G40.9 G97.8 K26 L02.2 L03.9 N19 R96 T42.6 T75.4 W19 X09 Z72.2 R99	2 1 2 2 1 1 1 1 1 1 2 1 1 4 4	0.3 0.1 0.3 0.3 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.1 0.1 0.5 0.5	<i>Other</i> Unspecified HIV disease Intoxication – unspecified drugs Epileptic seizures Cerebral hypoxia, unspecified Duodenal ulcer Groin abscess Cellulitis, unspecified Unspecified renal failure Sudden adult death syndrome Sedative/hypnotic overdose Electrocution Unspecified fall Inhalation of smoke and fumes Drug abuse, personal history Unascertained

Where possible, causes of death have been grouped together in terms of the mechanisms of death. At present, although all causes of death on the death certificate (together with other information if available) are taken into consideration in classifying underlying cause of death, the principal cause of death is used here to allocate the ICD-10 code. In order to achieve a greater level of consistency, a hierarchical system was introduced for classifying the underlying cause of death using ICD-10 criteria for deaths involving multiple substances. Deaths that involve a combination of narcotics and other psychoactive drugs are coded as narcotic deaths. Where possible a code which specifies intentionality is used.

Annex SR2: np-SAD cases reported in July-December 2005 by coroner's jurisdiction (No. of cases, rate per 100,000 population (16 years old and over) and as a percentage of all inquests)

Coroner's Jurisdiction & county district	Number of np-SAD deaths Jul-Dec 2005	Semi-annual death rate per 100,000 population ⁽¹⁾	Annual % of all inquests held in 2005 ⁽²⁾
Queen's Household	0	0.00	0.00
ENGLAND			
AVON	7	0.85	1.30
BEDFORDSHIRE	12	2.64	6.03
BERKSHIRE	0	0.00	0.00
BUCKINGHAMSHIRE			
Buckinghamshire	7	1.85	3.89
Milton Keynes	6	3.54	6.52
CAMBRIDGESHIRE			
North & East Cambridgeshire	7	5.31	11.67
Peterborough	3	2.39	3.13
South & West Cambridgeshire	0	0.00	0.00
CHESHIRE	19	2.38	3.70
CORNWALL			
Cornwall	2	0.47	0.60
Isles of Scilly	0	0.00	0.00
CUMBRIA			
North Eastern Cumbria	4	2.40	3.70
Southern Cumbria & Furness	3	2.11	2.29
Western Cumbria	2	2.07	2.78
DERBYSHIRE			
Derby & South Derbyshire	13	2.78	4.83
Scarsdale (including High Peak)	8	2.49	3.51
DEVON			
Exeter & Greater Devon	24	5.01	7.00
Plymouth & South West Devon	-	-	-
Torbay & South Devon	5	2.57	5.56
DORSET			
Bournemouth, Poole & Eastern Dorset	6	1.52	3.95
Western Dorset	1	0.54	1.20
DURHAM			
Darlington & South Durham	4	1.81	2.40
North Durham	2	0.76	0.80
EAST SUSSEX			
Brighton & Hove	26	12.35	13.47
East Sussex	3	0.74	1.01
ESSEX			
Essex & Thurrock	5	0.48	1.12
Southend & South East Essex	8	3.05	7.08
GLOUCESTERSHIRE			
Cheltenham	1	2.14	3.13
Gloucester	-	-	-

Coroner's Jurisdiction & county district	Number of np-SAD deaths Jul-Dec 2005	Semi-annual death rate per 100,000 population ⁽¹⁾	Annual % of all inquests held in 2005 ⁽²⁾
GREATER MANCHESTER			
Manchester	1	0.28	0.22
North Manchester	7	1.47	2.29
South Manchester	15	2.64	2.28
West Manchester	3	0.48	0.65
HAMPSHIRE			
Central Hampshire	7	2.58	4.96
North East Hampshire	6	1.95	5.31
Portsmouth & South East Hampshire	13	2.94	5.88
Southampton & New Forest	9	2.78	3.91
HEREFORDSHIRE	2	1.38	2.86
HERTFORDSHIRE	13	1.57	3.48
HUMBERSIDE			
East Riding & Hull	13	2.80	3.68
ISLE OF WIGHT	3	2.63	4.92
KENT			
Central & South East Kent	2	0.78	1.12
Mid Kent & Medway	5	2.40	2.60
North East Kent	-	-	-
North West Kent	-	-	-
LANCASHIRE			
Blackburn, Hyndburn & Ribble Valley	9	4.19	5.17
Blackpool & the Fylde	9	5.01	7.89
East Lancashire	10	5.24	6.58
Preston & West Lancashire	2	0.36	0.67
LEICESTERSHIRE			
Leicester City & South Leicestershire	-	-	-
Rutland & North Leicestershire	1	0.28	0.67
LINCOLNSHIRE			
Boston & Spalding	2	1.76	2.90
North Lincolnshire & Grimsby	5	1.99	4.17
Spilsby & Louth	0	0.00	0.00
Stamford	0	0.00	0.00
West Lincolnshire	7	3.35	7.07
LONDON			
City of London	0	0.00	0.00
Eastern London	11	1.27	3.31
Inner North London	25	3.81	6.08
Inner South London	34	4.25	5.56
Inner West London	5	0.67	1.19
Northern London	26	2.48	6.86
Southern London	12	1.45	3.72
Western London	49	4.74	9.72
MERSEYSIDE			
Knowsley, St Helens & Sefton	11	2.26	4.58
Liverpool	17	4.70	3.90
Wirral	8	3.18	3.02
NORFOLK			
Great Yarmouth	-	-	-
King's Lynn	1	0.87	1.54
Norwich & Central Norfolk	12	2.48	5.02
NORTHAMPTONSHIRE	8	1.56	3.94

Coroner's Jurisdiction & county district	Number of np-SAD deaths Jul-Dec 2005	Semi-annual death rate per 100,000 population ⁽¹⁾	Annual % of all inquests held in 2005 ⁽²⁾
NORTHUMBERLAND			
North Northumberland	4	4.23	3.25
South Northumberland	-	-	-
NORTH YORKSHIRE			
North Yorkshire Eastern	2	1.00	1.59
North Yorkshire Western	4	1.47	2.86
York	4	2.60	3.77
NOTTINGHAMSHIRE	7	0.83	1.55
OXFORDSHIRE	7	1.40	2.78
SHROPSHIRE			
Mid & North Shropshire	4	2.56	4.30
South Shropshire	0	0.00	0.00
The Wrekin	2	1.58	3.28
SOMERSET			
Eastern Somerset	3	1.42	3.00
Western Somerset	3	1.47	2.48
SOUTH YORKSHIRE			
South Yorkshire East	5	1.16	1.65
South Yorkshire West	19	3.18	4.17
STAFFORDSHIRE			
South Staffordshire	4	0.83	1.23
Stoke-on-Trent & North Staffordshire	8	2.16	1.78
SUFFOLK			
Greater Suffolk	11	2.93	5.37
Lowestoft	3	1.70	5.88
SURREY	10	1.16	2.55
TEESSIDE			
Hartlepool	2	2.81	3.08
Teesside	3	0.81	0.95
TYNE & WEAR			
Gateshead & South Tyneside	5	1.80	3.65
Newcastle-upon-Tyne	5	2.26	1.52
North Tyneside	-	-	-
Sunderland	1	0.44	0.32
WARWICKSHIRE	-	-	-!
WEST MIDLANDS			
Birmingham	12	1.29	1.38
Black Country	6	0.90	2.32
Coventry	1	0.41	0.67
Wolverhampton	7	3.66	6.48
WEST SUSSEX	15	2.43	4.39
West YORKSHIRE			
West Yorkshire Eastern	26	3.10	4.84
West Yorkshire Western	20	2.39	4.71
WILTSHIRE	5	1.00	1.95
WORCESTERSHIRE	8	1.79	2.62

Coroner's Jurisdiction & county district	Number of np-SAD deaths Jul-Dec 2005	Semi-annual death rate per 100,000 population ⁽¹⁾	Annual % of all inquests held in 2005 ⁽²⁾
WALES			
Bridgend & Glamorgan Valleys	9	2.69	3.66
Cardiff & the Vale of Glamorgan	-	-	-
Cardiganshire	1	0.69	1.12
Central North Wales	-	-	-
Ceredigion	2	3.07	5.00
Gwent	4	0.90	2.53
Neath & Port Talbot	4	3.63	7.41
North East Wales	-	-	-
North West Wales	5	3.30	4.20
Pembrokeshire	1	1.06	1.35
Powys	2	1.88	2.47
Swansea	-	-	-
NORTHERN IRELAND			
Armagh and Craigavon	-	-	-
East Tyrone	-	-	-
Fermanagh & Omagh	-	-	-
Greater Belfast	-	-	-
Londonderry	-	-	-
North Antrim	-	-	-
South Down	-	-	-
THE ISLANDS			
GUERNSEY	3	6.13	23.08
JERSEY	3	4.17	7.69
ISLE OF MAN	0	0.00	0.00
SCOTLAND			
ARGYLL & CLYDE			
Dumbarton	0	0.00	-

Please note that (0) refers to either no drug-related deaths or death rates of less than 0.01, whilst (-) indicates that no reports were submitted for the specific period from that jurisdiction. In subsequent reports these rates may increase as more inquests on deaths in 2004 are held and/or notified to the np-SAD. These rates should therefore be regarded as minimum rates.

- (1) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question. However, the areas covered by 28 of the coroners' jurisdictions in England and Wales, as well as the area covered by the Procurators Fiscal region in Dumbarton, are not co-terminous with these boundaries and cover parts of such areas (see Appendix 1). Where administrative areas are split between jurisdictions, the estimated population has been divided into two or three as applicable. However, this means that the population of some coroners' jurisdictions may be either over- or under-estimated. It is necessary to make such assumptions until more accurate figures can be obtained or calculated.
- (2) Inquests held on all ages.

Annex SR3: Changes in semi-annual death rate per 100,000 population for np-SAD cases, 2003-2005 (16 years old and over)

Coroner's jurisdiction & county district	Semi-annual death rate per 100,000 population ^(1, 2)					
	Jan-June 2003	Jul-Dec 2003	Jan-June 2004	Jul-Dec 2004	Jan-June 2005	Jul-Dec 2005
Queen's Household	0.00	0.00	0.00	0.00	0.00	0.00
ENGLAND						
AVON	2.84	2.20	2.20	0.98	1.10	0.85
BEDFORDSHIRE	2.57	3.74	1.76	4.85	2.20	2.64
BERKSHIRE	1.34	1.54	0.78	0.47	-	0.00
BUCKINGHAMSHIRE						
Buckinghamshire	0.45	0.89	0.79	2.37	2.90	1.85
Milton Keynes	0.00	0.00	3.54	1.77	-	3.54
CAMBRIDGESHIRE						
North & East Cambridgeshire	0.79	-	1.52	1.52	0.76	5.31
Peterborough	1.68	3.37	3.99	3.19	1.60	2.39
South & West Cambridgeshire	2.55	0.64	2.08	2.37	1.19	0.00
CHESHIRE	2.77	0.79	1.63	1.75	1.50	2.38
CORNWALL						
Cornwall	1.00	0.50	0.24	-	0.47	0.47
Isles of Scilly	0.00	0.00	0.00	0.00	0.00	0.00
CUMBRIA						
North Eastern Cumbria	3.19	2.55	1.20	2.40	3.60	2.40
Southern Cumbria & Furness	1.48	5.17	1.41	2.11	0.70	2.11
Western Cumbria	1.10	4.42	2.07	2.07	1.04	2.07
DERBYSHIRE						
Derby & South Derbyshire	1.13	1.58	1.50	1.92	1.07	2.78
Scarsdale (including High Peak)	2.94	3.92	2.17	2.17	2.80	2.49
DEVON						
Exeter & Greater Devon	2.00	1.78	2.09	2.92	3.97	5.01
Plymouth & South West Devon	2.40	2.40	-	-	-	-
Torbay & South Devon	2.64	1.98	3.08	0.51	1.03	2.57
DORSET						
Bournemouth, Poole & Eastern Dorset	2.11	1.32	2.78	3.03	2.02	1.52
Western Dorset	2.31	-	2.18	2.18	-	0.54
DURHAM						
Darlington & South Durham	2.39	2.87	0.45	4.08	1.36	1.81
North Durham	2.82	0.80	0.38	1.14	0.38	0.76
EAST SUSSEX						
Brighton & Hove	14.38	12.40	14.72	10.45	9.02	12.35
East Sussex	1.81	2.85	5.68	3.70	2.72	0.74
ESSEX						
Essex & Thurrock	0.50	0.60	0.67	0.57	1.05	0.48
Southend & South East Essex	1.20	2.39	1.91	1.52	-	3.05
GLOUCESTERSHIRE						
Cheltenham	2.17	1.30	1.36	0.90	-	2.14
Gloucester	3.09	3.09	3.25	4.64	-	-

Coroner's Jurisdiction & county district	Jan-June 2003	Jul-Dec 2003	Jan-June 2004	Jul-Dec 2004	Jan-June 2005	Jul-Dec 2005
GREATER MANCHESTER						
Manchester	5.80	5.49	4.54	1.70	-	0.28
North Manchester	2.33	2.68	2.53	1.89	1.26	1.47
South Manchester	1.11	2.41	2.47	1.58	3.35	2.64
West Manchester	-	2.02	1.11	0.95	0.95	0.48
HAMPSHIRE						
Central Hampshire	0.39	0.39	1.10	3.31	1.47	2.58
North East Hampshire	0.69	1.03	2.93	2.93	1.95	1.95
Portsmouth & South East Hampshire	3.10	0.48	0.45	4.52	1.58	2.94
Southampton & New Forest	4.56	1.95	4.02	3.71	5.56	2.78
HEREFORDSHIRE	0.73	1.46	-	0.69	-	1.38
HERTFORDSHIRE	2.40	3.41	2.05	3.02	2.53	1.57
HUMBERSIDE						
East Riding & Hull	2.29	1.60	4.89	3.01	6.02	2.80
ISLE OF WIGHT	4.66	1.87	1.75	-	0.00	2.63
KENT						
Central & South East Kent	0.41	0.82	-	1.16	1.55	0.78
Mid Kent & Medway	1.04	1.83	3.84	5.76	2.40	2.40
North East Kent	-	-	-	-	-	-
North West Kent	0.00	0.00	-	-	-	-
LANCASHIRE						
Blackburn, Hyndburn & Ribble Valley	1.49	0.50	0.47	2.79	0.00	4.19
Blackpool & the Fylde	4.09	4.68	5.01	5.57	7.24	5.01
East Lancashire	7.76	4.44	7.86	2.62	4.71	5.24
Preston & West Lancashire	3.02	1.51	1.60	3.91	0.36	0.36
LEICESTERSHIRE						
Leicester City & South Leicestershire	-	-	-	-	-	-
Rutland & North Leicestershire	-	-	0.28	0.28	1.14	0.28
LINCOLNSHIRE						
Boston & Spalding	1.86	3.72	6.17	2.65	-	1.76
North Lincolnshire & Grimsby	-	-	-	-	-	1.99
Spilsby & Louth	0.85	0.00	0.00	-	-	0.00
Stamford	-	1.03	0.00	-	0.00	0.00
West Lincolnshire	1.53	2.56	2.87	3.83	3.35	3.35
LONDON						
City of London	0.00	0.00	0.00	0.00	-	0.00
Eastern London	1.22	0.98	0.35	0.69	0.58	1.27
Inner North London	6.64	4.53	3.05	2.90	5.03	3.81
Inner South London	3.15	2.62	1.25	0.88	2.13	4.25
Inner West London	2.70	2.56	0.94	0.54	0.94	0.67
Northern London	1.00	1.40	1.90	1.43	2.19	2.48
Southern London	1.79	0.38	0.97	0.61	0.97	1.45
Western London	3.77	4.48	3.58	-	4.74	4.74
MERSEYSIDE						
Knowsley, St Helens & Sefton	1.09	1.52	1.23	2.26	2.47	2.26
Liverpool	5.34	3.27	5.53	7.47	7.74	4.70
Wirral	1.26	4.62	3.58	1.19	-	3.18

Coroner's Jurisdiction & county district	Jan-June 2003	Jul-Dec 2003	Jan-June 2004	Jul-Dec 2004	Jan-June 2005	Jul-Dec 2005
NORFOLK						
Great Yarmouth	0.00	0.00	-	-	-	-
King's Lynn	0.92	0.92	2.62	-	-	0.87
Norwich & Central Norfolk	1.09	2.40	-	4.14	4.55	2.48
NORTHAMPTONSHIRE	1.86	2.89	2.34	1.36	1.17	1.56
NORTHUMBERLAND						
North Northumberland	6.71	2.24	6.35	-	5.29	4.23
South Northumberland	-	0.00	-	2.49	0.62	-
NORTH YORKSHIRE						
North Yorkshire Eastern	0.53	0.53	1.00	0.50	1.50	1.00
North Yorkshire Western	0.78	1.17	0.37	2.58	0.74	1.47
York	1.39	3.46	0.65	-	-	2.60
NOTTINGHAMSHIRE	0.89	1.39	0.71	1.19	0.36	0.83
OXFORDSHIRE	1.27	0.64	0.80	0.40	1.40	1.40
SHROPSHIRE						
Mid & North Shropshire	1.35	1.35	-	1.28	1.92	2.56
South Shropshire	0.00	0.00	0.00	-	-	0.00
The Wrekin	0.00	2.52	0.79	1.58	0.79	1.58
SOMERSET						
Eastern Somerset	1.01	2.02	1.90	0.47	0.95	1.42
Western Somerset	2.07	1.55	2.94	3.43	3.43	1.47
SOUTH YORKSHIRE						
South Yorkshire East	2.45	1.22	0.69	1.62	1.39	1.16
South Yorkshire West	3.19	4.08	2.51	3.01	2.84	3.18
STAFFORDSHIRE						
South Staffordshire	1.10	1.76	2.59	3.12	1.46	0.83
Stoke-on-Trent & North Staffordshire	3.13	1.99	2.70	3.78	2.16	2.16
SUFFOLK						
Greater Suffolk	3.10	2.81	1.60	1.60	3.73	2.93
Lowestoft	1.79	1.20	0.00	2.26	2.26	1.70
SURREY	0.97	1.10	0.46	0.23	0.35	1.16
TEESSIDE						
Hartlepool	5.96	2.98	-	-	-	2.81
Teesside	1.15	0.86	1.90	3.25	2.71	0.81
TYNE & WEAR						
Gateshead & South Tyneside	0.76	1.14	-	3.96	2.52	1.80
Newcastle-upon-Tyne	-	-	7.68	-	6.33	2.26
North Tyneside	-	0.00	-	1.93	0.64	-
Sunderland	0.46	0.00	-	-	-	0.44
WARWICKSHIRE	2.49	1.00	0.70	-	0.47	-
WEST MIDLANDS						
Birmingham	2.63	1.37	2.37	1.19	1.94	1.29
Black Country	0.47	0.47	1.05	-	-	0.90
Coventry	0.00	0.44	3.30	1.24	-	0.41
Wolverhampton	6.63	2.21	4.18	-	-	3.66
WEST SUSSEX	2.54	2.04	-	2.43	1.46	2.43

Coroner's Jurisdiction & county district	Jan-June 2003	Jul-Dec 2003	Jan-June 2004	Jul-Dec 2004	Jan-June 2005	Jul-Dec 2005
WEST YORKSHIRE						
West Yorkshire Eastern	1.90	1.52	3.33	4.64	2.98	3.10
West Yorkshire Western	2.93	1.66	1.56	2.39	2.27	2.39
WILTSHIRE	0.63	0.21	1.00	1.20	1.20	1.00
WORCESTERSHIRE	0.94	3.30	2.68	1.56	3.35	1.79
WALES						
Bridgend & Glamorgan Valleys	2.53	2.85	0.90	2.39	1.50	2.69
Cardiff & the Vale of Glamorgan	0.61	-	1.70	0.28	-	-
Carmarthenshire	5.17	2.21	-	4.16	2.08	0.69
Central North Wales	-	-	0.00	-	-	-
Ceredigion	-	1.64	0.00	0.00	-	3.07
Gwent	2.15	3.59	1.36	0.90	1.36	0.90
Neath & Port Talbot	0.96	1.92	5.45	3.63	5.45	3.63
North East Wales	-	0.00	0.00	-	-	-
North West Wales	-	-	1.98	2.64	0.66	3.30
Pembrokeshire	1.12	1.12	2.12	2.12	-	1.06
Powys	0.00	0.00	0.94	-	-	1.88
Swansea	-	-	-	-	-	-
NORTHERN IRELAND						
Armagh	-	1.91	-	-	-	-
East Tyrone	0.00	-	-	-	-	-
Fermanagh & Omagh	-	-	-	-	-	-
Greater Belfast	0.74	0.59	-	-	-	-
Londonderry	-	-	-	-	-	-
North Antrim	-	-	-	-	-	-
South Down	0.00	-	-	-	-	-
THE ISLANDS						
GUERNSEY	6.13	4.09	-	6.13	0.00	6.13
JERSEY	8.33	5.55	4.15	9.69	0.00	4.17
ISLE OF MAN	4.85	0.00	1.62	1.62	11.32	0.00
SCOTLAND						
ARGYLL & CLYDE						
Dumbarton	8.40	10.51	1.05	8.43	9.49	0.00
LOTHIAN & BORDERS						
Linlithgow	0.84	-	-	-	-	-

Please note that (0) refers to either no drug-related deaths or death rates of less than 0.01, whilst (–) indicates that no reports were submitted for the specific period from that jurisdiction. In subsequent reports these rates may increase as more inquests on deaths in earlier years are held and/or notified to the np-SAD. These rates should be regarded as minimum rates.

- (1) The rate per 100,000 population is based on published mid-year population estimates for local government administrative areas for the years in question. However, the areas covered by 28 of the coroners' jurisdictions in England and Wales, as well as the area covered by the Procurators Fiscal region in Dumbarton, are not co-terminous with these boundaries and cover parts of such areas (see Appendix 1). Where administrative areas are split between jurisdictions, the estimated population has been divided into two or three as applicable. However, this means that the population of some coroners' jurisdictions may be either over- or under-estimated. It is necessary to make such assumptions until more accurate figures can be obtained or calculated.
- (2) These rates are based on the number of inquests reported to the np-SAD during the relevant 6-month period. They do not, therefore, reflect the workload of the coroners in terms of the number of drug-related death inquests held in these periods. Furthermore, details of additional inquests held in these periods may be subsequently notified to the np-SAD.

Appendices

Appendix 1: Coroner's jurisdictions/ police force areas reporting drug-related deaths, United Kingdom & Islands

Administrative county/area	Jurisdiction	Description
	(The) Queen's Household	"The Coroner of the Queen's Household has exclusive jurisdiction in respect of inquests and, semple, inquiries which do not lead to inquests, on persons whose bodies are lying within the limits of any of the Queen's palaces or within the limits of any other house where Her Majesty is then demurrant and abiding in her own royal person, notwithstanding the subsequent removal of Her Majesty from such palace or house. The limits of the palace or house are deemed to extend to any courts, gardens or other places within the curtilage of the palace or house but not further. Where a body is lying dead beyond these limits, the coroner of the Queen's Household has no jurisdiction."
ENGLAND		
Avon	Avon	The city of Bristol and the districts of Bath & North East Somerset, North West Somerset & South Gloucestershire
Bedfordshire	Bedfordshire & Luton	The whole county of Bedfordshire and the county of Luton
Berkshire	Berkshire	The whole county of Berkshire
Buckinghamshire	Buckinghamshire	The whole county of Buckinghamshire (excl. Milton Keynes)
	Milton Keynes	The whole county of Milton Keynes
Cambridgeshire	North & East Cambridgeshire	The districts of Fenland & East Cambridgeshire
	Peterborough	The district of Peterborough
	South & West Cambridgeshire	The City of Cambridge, the districts of Huntingdon and South Cambridgeshire
Cheshire	Cheshire	The whole county of Cheshire
Cornwall	Cornwall	The whole county of Cornwall (exc. Isles of Scilly)
	Isles of Scilly	The Isles of Scilly
Cumbria	North Eastern Cumbria	The district of Carlisle. The district of Eden, except the Parish of Threlkeld; In the district of Allerdale, the parishes of Aikton, Allhallows, Allonby, Aspatia, Blennerhasset & Torpenhow, Bolton, Bowness, Bromfield, Caldbeck, Dundraw, Hayton & Mealo, Holme Abbey, Holme East Waver, Holme Low, Holme St Cuthbert, Ireby, Kirkhampton, Kirkbride, Sebergham, Silloth, Thursby, Waverton, Westnewton, Westward, Wigton & Woodside. Skinburness Marsh, common to the Parishes of Holme Abbey, Holme Low & Holme St Cuthbert Civil
	Western Cumbria	The district of Copeland. The district of Allerdale, except the parts in the Coroner's Jurisdiction of North Eastern Cumbria. In the district of Eden, the parish of Threlkeld.

Administrative county/area	Jurisdiction	Description
Derbyshire	Derby & South Derbyshire	The county of Derby and the districts of Erewash & South Derbyshire. The district of Amber Valley (except the parts in the Coroners' Jurisdictions of High Peak and Scarsdale). In the district of West Derbyshire, the parishes of Alkmonton, Ashbourne, Atlow, Biggin, Boylestone, Bradbourne, Bradley, Brailsford, Clifton & Compton, Cubley, Doveridge, Edlaston & Wyaston, Fenny Bentley, Hognaston, Hollington, Hulland, Hulland Ward, Hungry Bentley, Kirk Ireton, Kniveton, Lea Hall, Longford, Mapleton, Marston Montgomery, Mercaston, Norbury & Roston, Offcote & Underwood, Osmaston, Rodsley, Shirley, Snelston, Somersal Herbert, Sudbury, Thorpe, Tissington, Yeaveley and Yeldersley
	High Peak	The district of High Peak. The district of West Derbyshire, except the parishes of the Coroner's Jurisdiction of Derby & South Derbyshire. In the district of Amber Valley, the parishes of Dethick, Lea & Holloway
	Scarsdale	The districts of Bolsover, Chesterfield & North East Derbyshire. In the district of Amber Valley, the parish of South Wingfield and Wards nos 1-4.
Devon	Exeter & Greater Devon	The districts of East Devon, Exeter, Mid Devon, North Devon, Torridge, West Devon. That part of the district of Teignbridge comprising the parishes of Alphington, Ashton, Bovey Tracey, Bridford, Christow, Chudleigh, Doddiscombsleigh, Dunchideock, Dunsford, Exminster, Hennock, Holcombe Burnell, Ide, Kenn, Lustleigh, Manaton, Moretonhampstead, North Bovey, Shillingford St George, Tedburn St Mary, Trusham & Whitestone.
	Plymouth & South West Devon	The district of Plymouth. The district of South Hams except the parishes in the Torbay and South Devon coroner's district.
	Torbay & South Devon	The district of Torbay. The district of Teignbridge except the parishes in the Coroner's Jurisdiction of Exeter and Greater Devon. That part of the district of South Hams comprising the parishes of Ashprington, Berry Pomeroy, Blackawton, Cornworthy, Dartington, Dartmouth, Dean Prior, Dittisham, Halwell, Harberton, Holne, Kingswear, Littlehampton, Marldon, Rattery, Slapton, Staverton, Stoke Fleming, Stoke Gabriel, Strete, Totnes and West Buckfastleigh
Dorset	Bournemouth, Poole & Eastern Dorset	The counties of Bournemouth & Poole, Christchurch, Purbeck and Wimbourne
	Western Dorset	The districts of West Dorset, North Dorset and Weymouth & Portland
Durham	Darlington & South Durham	The county of Darlington and the districts of Sedgefield and Teesdale {Wear Valley also included}
	North Durham	The districts of Chester-Le-Street, Derwentside, Durham and Easington
East Sussex	Brighton & Hove	The county of Brighton & Hove
	East Sussex	The whole county of East Sussex
Essex	Essex & Thurrock (Essex No 1)	The districts of Basildon, Braintree, Brentwood, Chelmsford, Colchester, Epping Forest, Harlow, Maldon, Tendring, Thurrock and Uttlesford

Administrative county/area	Jurisdiction	Description
	Southend & South East Essex (Essex No 2)	The districts of Southend, Rochford and Castle Point
Gloucestershire	Cheltenham	The districts of Cheltenham, Cotswold, Stroud & Tewkesbury, except the parishes in the Coroner's Jurisdiction of Gloucester
	Gloucester	The districts of Forest of Dean & Gloucester. In the district of Tewkesbury, the parishes of Ashleworth, Brockworth, Chaceley, Churchdown, Down Hathersley, Forthampton, Hasfield, Highnam, Hucclecote, Innsworth, Longford, Maisemore, Minsterworth, Norton, Sandhurst, Tirley & Twigworth. In the district of Stroud, the parishes of Alkington, Alderley, Arlingham, Berkeley, Brookthorpe-with Whaddon, Cam, Coaley, Dursley, Eastington, Elmore, Frampton-on-Severn, Fretherne-with-Saul, Frocester, Ham & Stone, Hamfallow, Haresfield, Harescombe, Hardwicke, Hinton, Kingswood, Longney, Moreton Valence, North Nibley, Nympsfield, Owlpen, Quedgeley, Slimbridge, Standish, Stinchcombe, Uley, Upton St Leonards, Whitminster & Wotton-under-Edge. In the district of Cotswold, the parishes of Boxwell-with-Leighterton, Didmarton, Kingscote & Ozleworth
Greater Manchester	Manchester	The district of Manchester
	North Manchester	The districts of Bury, Rochdale & Oldham
	South Manchester	The districts of Stockport, Tameside and Trafford
	West Manchester	The districts of Wigan, Bolton and Salford
Hampshire	Central Hampshire	The districts of Winchester, Test Valley and Eastleigh
	North East Hampshire	The districts of Basingstoke, Hart & Rushmoor and that part of the district of East Hampshire not contained in the Portsmouth & South East Hampshire coroner's district
	Portsmouth & South East Hants	The county of Portsmouth and the districts of Fareham, Gosport and Havant and, in the district of East Hampshire, the parishes of Buriton, Clanfield, Colemore and Priors Dean, East Meon, Froxfield, Hawkley, Horndean, Langrish, Liss, Petersfield, Rowlands Castle and Steep
	Southampton & New Forest	The county of Southampton and the district of New Forest
Herefordshire	Herefordshire	The whole county of Herefordshire
Hertfordshire	Hertfordshire	The whole county of Hertfordshire
Humberside	East Riding & Hull	The counties of the East Riding of Yorkshire and the city of Kingston-upon-Hull
Isle of Wight	Isle of Wight	The whole county of the Isle of Wight
Kent	Central & South East Kent	The district of Shepway. The borough of Ashford. The district of Dover except those parishes with the North East Kent coroner's district. In the district of Swale, the parishes of Boughton under Bleab, Doddington, Dunkirk, Eastling, Faversham, Graveney & Goodnestone, Hernhill, Luddenham, Lynsted, Newnham, Norton & Buckland, Oare, Ospringe, Selling, Sheldwich Badlesmere & Leaveland, Stalisfield, Stone, Teynham, Throwley

Administrative county/area	Jurisdiction	Description
	Mid Kent & Medway	The City of Rochester upon Medway, the districts of Gillingham and Maidstone. The district of Swale, with the exception of Faversham and the parishes in the Coroner's Jurisdiction of East Kent. In the district of Tonbridge and Malling, the parishes of Addington, Aylesford, Birling, Burham, Ditton, East Malling & Larkfield, King's Hill, Leybourne, Mereworth, Offham, Ryarsh, Snodland, Trottiscliffe, Watlington & East Peckham, Wouldham.
	North East Kent	The district of Thanet. The City of Canterbury. In the district of Dover, the parishes of Ash, Aylesham, Deal, Eastry, Eythorpe, Goodnestone, Great Mongeham, Nonington, Northbourne, Preston, Ringwould & Kingsdown, Ripple, Sandwich, Sholden, Staple, Stourmouth, Sutton by Dover, Tilmanstone, Walmer, Wingham, Woodnesborough, Worth.
	North West Kent	The districts of Dartford, Gravesham, Sevenoaks and Tunbridge Wells. The district of Tonbridge and Malling, except the parishes in the Mid-Kent and Medway Coroner's district.
Lancashire	Blackburn, Hyndburn & Ribble Valley	The districts of Blackburn, Hyndburn & Ribble Valley
	Blackpool & the Fylde	The districts of Blackpool and Fylde
	East Lancashire	The districts of Burnley, Pendle and Rossendale
	Preston & West Lancashire	The districts of Lancaster, Wyre, Chorley, Preston, South Ribble and West Lancashire
Leicestershire	Leicester City & South Leicestershire	The county of Leicester and the districts of Blaby, Harborough, Oadby, Wigston
	Rutland & North Leicestershire	The county of Rutland and the districts of Charnwood, Hinckley & Bosworth, Melton and North West Leicestershire
Lincolnshire	Boston & Spalding	The districts of Boston and South Holland
	North Lincolnshire & Grimsby	The counties of North Lincolnshire and North East Lincolnshire
	Spilsby & Louth	The district of East Lindsey, except the parishes in the West Lincolnshire coroners' district. In the district of West Lindsey, the parishes of Bigby, Brocklesbury, Cabourne, Caistor, Claxby, Grasby, Great Limber, Holton Le Moor, Keelby, Kirmond le Mire, Legsby Linwood, Market Rasen, Middle Rasen, Nettleton, Normanby le Wold, North Kelsey, North Willingham, Osgodby, Owersby, Riby, Rothwell, Searby cum Owmbly, Sixhills, Somerby, South Kelsey, Stainton le Vale, Swallow, Swinhope, Tealby, Thoresway, Thorganby and Walesby.
	Stamford	In the district of South Kesteven, the parishes of Aslackby & Laughton, Barholm & Stowe, Baston, Billingborough, Bourne, Braceborough & Wilsthorpe, Careby Aunby & Holywell, Carlby, Castle Bytham, Corby Glen, Couthorpe & Creeton, Deeping St James, Dowsby, Dunsby, Edenham, Folkingham, Greatford, Haconby, Horbling, Irnham, Kirkby Underwood, Langtoft, Little Bytham, Market Deeping, Morton, Pointon & Sempringham, Rippingale, Stamford, Swayfield, Swinstead, Tallington, Thurlby, Toft with Lound & Manthorpe, Uffington, West Deeping and Witham on the Hill

Administrative county/area	Jurisdiction	Description
	West Lincolnshire	The district of Lincoln. The district of North Kesteven. The district of South Kesteven, except the parishes in the Coroner's Jurisdiction of Stamford. The district of West Lindsey, except the parishes in the Coroner's jurisdiction of Spilsby & Louth. In the district of East Lindsey, the parishes of East & West Barkwith, Hatton, Langton by Wragby, Panton, West Torrington, Wragby.
London	City of London	City of London
	Eastern London	The London boroughs of Barking, Havering, Newham, Redbridge & Waltham Forest
	Inner North London	The London boroughs of Camden, Hackney, Islington & Tower Hamlets
	Inner South London	The London boroughs of Greenwich, Lambeth, Lewisham & Southwark
	Inner West London	The London boroughs of Wandsworth & Merton, the Royal Borough of Kensington & Chelsea, and the City of Westminster
	Northern London	The London boroughs of Barnet, Brent, Enfield, Haringey & Harrow
	Southern London	The London boroughs of Bexley, Bromley, Croydon and Sutton
	Western London	The London boroughs of Ealing, Hammersmith, Hillingdon, Hounslow and Richmond-upon-Thames, and the Royal Borough of Kingston-upon-Thames
Merseyside	Knowsley, St Helens & Sefton	The districts of Knowsley, St Helens and Sefton
	Liverpool	The district of Liverpool
	Wirral	The district of Wirral
Norfolk	Great Yarmouth	The borough of Great Yarmouth
	King's Lynn	The district of King's Lynn and West Norfolk
	Norwich & Central Norfolk	The city of Norwich, the districts of Broadland, Breckland, North Norfolk, and South Norfolk
Northamptonshire	Northamptonshire	The whole county of Northamptonshire
Northumberland	North Northumberland	The districts of Alnwick and Berwick-upon-Tweed and so much of the districts of Castle Morpeth and Wansbeck as lies north of the line for the time being of the centre of the River Wansbeck
	South Northumberland	The districts of Blyth Valley & Tynedale, and so much of the districts of Castle Morpeth & Wansbeck as lie south of the line for the time being of the centre of the River Wansbeck
North Yorkshire	North Yorkshire Eastern	The districts of Hambleton, Ryedale and Scarborough
	North Yorkshire Western	The districts of Richmondshire, Craven, Harrogate and Selby
	York	The county of York. In the district of Harrogate, the parishes of Nether and Upper Poppleton. In the district of Ryedale, the parishes of Clifton (without), Earswick, Haxby, Heworth (without), Holtby, Huntington, Murton, New Earswick, Osbaldwick, Rawcliffe, Skelton, Stockton-on-the-Forest, Strensall, Towthorpe, Wigginton. In the district of Selby, the parishes of Dunnington, Elvington, Fulford, Heslington, Kexby, Naburn & Deighton, Wheldrake.
Nottinghamshire	Nottinghamshire	The whole county of Nottinghamshire and the City of Nottingham
Oxfordshire	Oxfordshire	The whole of the county of Oxfordshire
Shropshire	Mid & North Shropshire	The districts of Oswestry, North Shropshire, Shrewsbury & Atcham

Administrative county/area	Jurisdiction	Description
	South Shropshire	The districts of South Shropshire and Bridgnorth
	The Wrekin	The whole county of the Wrekin
Somerset	Eastern Somerset	The districts of Mendip and South Somerset
	Western Somerset	The districts of Sedgemoor, Taunton Deane and West Somerset
South Yorkshire	South Yorkshire East	The district of Doncaster and Rotherham
	South Yorkshire West	The districts of Barnsley and Sheffield
Staffordshire	South Staffordshire	The districts of Cannock Chase, East Staffordshire, Lichfield, South Staffordshire, Stafford and Tamworth.
	Stoke-on-Trent & North Staffordshire	The county of Stoke-on-Trent, and the districts of Newcastle-under-Lyme and Staffordshire Moorlands.
Suffolk	Greater Suffolk	The districts of Ipswich, Babergh, Forest Heath, St Edmundsbury. In the district of Suffolk Coastal, the parishes of Alderton, Bawdsey, Blaxhall, Boulge, Boyton, Bredfield, Brightwell, Bromeswell, Bucklesham, Burgh, Butley, Campsea Ash, Capel St Andrew, Charsfield, Chillesford, Clopton, Culpho, Dallinghoo, Dallinghoo Wield, Debach, Eyke, Falkenham, Felixstowe, Foxhall, Gedgrave, Great Bealings, Grundisburgh, Haskeston, Havergate Island, Hemley, Hollesley, Iken, Kesgrave, Kirton, Levington, Little Bealings, Martlesham, Melton, Nacton, Newbourne, Orford, Otley, Pettistree, Playford, Purdis Farm, Ramsholt, Rendlesham, Rushmere St Andrew, Shottisham, Stratton Hall, Sudbourne, Sutton, Swilland, Trimley St Martin, Trimley St Mary, Tuddenham St Martin, Tunstall, Ufford, Waldringfield, Wantisden, Westerfield, Wickham Market, Witnesham & Woodbridge. In the district of Mid Suffolk, the parishes of Akenham, Ashbocking, Bacton, Badley, Badwell Ash, Barham, Barking, Battisford, Baylham, Beyton, Botesdale, Bramford, Buxhall, Claydon, Coddennham, Combs, Cotton, Creeting St Mary, Creeting St Peter, Crowfield, Drinkstone, Earl Stonham, Elmswell, Felsham, Finningham, Flowton, Gedding, Gipping, Gosbeck, Great Ashfield, Great Blakenham, Great Bricett, Great Finborough, Harleston, Haughley, Helmingham, Hemingstone, Henley, Hessel, Hinderclay, Hunston, Langham, Little Blakenham, Little Finborough, Needham Market, Nettlestead, Norton, Offton, Old Newton, Onehouse, Rattlesden, Redgrave, Rickingham Inferior, Rickingham Superior, Ringshall, Selland, Somersham, Stowlangtoft, Stowmarket, Stowupland, Thurston, Tostock, Walsham-le-Willows, Wattisfield, Weesthorpe, Wetherden, Whitton, Willisham, Woolpit, Wyverstone.
	Lowestoft	The district of Waveney; that part of the districts of Mid Suffolk and Suffolk Coastal not contained in the Coroners' Jurisdiction of Greater Suffolk
Surrey	Surrey	The whole county of Surrey
Teesside	Hartlepool	The county of Hartlepool
	Teesside	The counties of Middlesbrough, Redcar & Cleveland and Stockton-on-Tees.
Tyne & Wear	Gateshead & South Tyneside	The districts of Gateshead and South Tyneside
	Newcastle-upon-Tyne	The City of Newcastle-upon-Tyne
	North Tyneside	The district of North Tyneside
	Sunderland	The district of Sunderland
Warwickshire	Warwickshire	The whole county of Warwickshire

Administrative county/area	Jurisdiction	Description
West Midlands	Birmingham	The districts of Birmingham & Solihull
	Black Country	The districts of Dudley, Sandwell, and Walsall
	Coventry	The district of Coventry
	Wolverhampton	The district of Wolverhampton
West Sussex	West Sussex	The whole county of West Sussex
West Yorkshire	West Yorkshire Eastern	The metropolitan district of Leeds and Wakefield
	West Yorkshire Western	The metropolitan districts of Bradford, Calderdale and Kirklees
Wiltshire	Wiltshire & Swindon	The counties of Wiltshire and Swindon
Worcestershire	Worcestershire	The whole county of Worcestershire
WALES		
	Bridgend & Glamorgan Valleys	The county boroughs of Bridgend, Merthyr Tydfil & Rhondda, Cynon & Taff
	Cardiff & the Vale of Glamorgan	The county of Cardiff and the county borough of the Vale of Glamorgan
	Cardiff & the Vale of Glamorgan	The county of Cardiff and the county borough of the Vale of Glamorgan
	Carmarthenshire	The districts of Carmarthen, Llanelli and Dinefwr
	Central North Wales	The county of Denbighshire, the county borough of Aberconwy & Colwyn.
	Ceredigion	The district of Ceredigion
	Gwent	The county of Monmouthshire, the county borough of Blaenau Gwent, Caerphilly, Newport and Torfaen
	Neath & Port Talbot	The districts of Neath & Port Talbot. In the borough of Lliw Valley, the communities of Cilybebyll, Clydach, Cwmllnffell, Gwam-Cae-Gurwen, Mawr, Pontardawe & Ystalyfera
	North East Wales	The boroughs of Flintshire and Wrexham. In the district of Glyndwr, the communities of Ceiriog Ucha, Chirk, Glyntraian, Llangedwyn, Llangollen, Llangollen Rural, Llanrhaeadr-ym-Mochnant, Llansantffraid Glyn Ceiriog, Llansilin & Llantysilio.
	North West Wales	The counties of Anglesey, Caernarfonshire, Merionethshire
	Pembrokeshire	The district of Preseli and South Pembrokeshire (including Caldey Island and St Margaret's Island)
	Powys	The whole county of Powys
	Swansea	The district of Swansea. In the borough of Lliw Valley, the communities of Gorseinon, Gowerton, Grovesend, Llangyfelach, Llchwyr, Penllergaer, Pontarsulais, Pont-Lliw.
NORTHERN IRELAND		
NORTHERN IRELAND		Whole of Northern Ireland
THE ISLANDS		
	Guernsey	Alderney, Brecqhou, Guernsey, Herm, Jethou, Lihou, Little Sark, Sark
	Jersey	Jersey
	Isle of Man	Isle of Man
SCOTLAND		
Argyll & Clyde	Dumbarton	Fiscal area (but figures included in Strathclyde Police figures)
Central Scotland Police		Clackmannanshire, Falkirk, and Stirling Council areas
Dumfries & Galloway Constabulary		Dumfries & Galloway Council area
Fife Constabulary		Fife Council area
Grampian Police		City of Aberdeen, Aberdeenshire, and Moray Council areas

Administrative county/area		Description
Lothian & Borders Police		East Lothian, City of Edinburgh, Midlothian, West Lothian, and the Borders Council areas
Northern Constabulary		Highland, Orkney Islands, Shetlands Islands, and Western Isles Council areas, and parts of Argyllshire (Ardnamuchan and Glencoe) and Morayshire (Grantown-on-Spey and Cromdale)
Strathclyde Police		Argyll and Bute, East Dumbartonshire, Dumbarton and Clydebank, South Lanarkshire, North Lanarkshire, East Ayrshire, North Ayrshire, East Renfrewshire, City of Glasgow, Inverclyde, South Ayrshire, and Renfrewshire Council areas
Tayside Police		Angus, City of Dundee, and Perthshire and Kinross Council areas

Since the start of 2004, the following amalgamations of coroners' jurisdictions in England have occurred: East Berkshire, Reading and West Berkshire to form one for the whole county of Berkshire (1 April 2004); East and West Cornwall to form one for the whole county of Cornwall, but excluding the Isles of Scilly (1 February 2004); in Cumbria, Furness and Southern Cumbria to form South Cumbria & Furness (1 April 2004); Hertford and West & North Hertfordshire to form one for the whole county of Hertfordshire (1 October 2004); in Lincolnshire, Louth and Spilsby to form Spilsby & Louth (1 December 2003); in the West Midlands, Dudley, Sandwell, and Walsall to form Black Country (1 August 2004).

The retirement of several coroners has resulted in some coroners taking on responsibility for additional jurisdictions. The Isles of Scilly (part of Cornwall) are currently being looked after by the coroner for Plymouth & South West Devon. In Derbyshire, data for High Peak has been submitted with data for Scarsdale. The two jurisdictions in Durham are now being looked after by the same coroner, but have not been formally amalgamated. The coroner for Greater Suffolk is also coroner for Southend & South East Essex, and took on responsibility for the Lowestoft jurisdiction from 1 August 2005. In Northern Ireland, a process of amalgamation has started so that by 1 April 2006 there was a single coroner's area covering the whole of the Province. It is centred on the Greater Belfast office and served by three full-time coroners, overseen by a High Court judge.

Appendix 2: np-SAD data collection form

The National Programme on Substance Abuse Deaths (np-SAD)

NOTIFICATION OF DRUG-RELATED DEATHS

Section I Demographic information

Deceased forename(s): _____ Gender: ☐ Male ☐ Female

Family name: _____ Other names known by: _____

Date of birth: ____/____/____ Place of birth: _____

Usual address: _____

Postcode: _____

Ethnicity (tick one only)

- ☐ White ☐ Pakistani ☐ Black African ☐ Other, specify _____
☐ Chinese ☐ Bangladeshi ☐ Black Caribbean ☐ Not known
☐ Indian ☐ Black other, specify _____

Occupational status (tick one only)

- ☐ Employed (manual) ☐ Unemployed ☐ Retired
☐ Employed (non-manual) ☐ Childcare/houseperson ☐ Student/pupil
☐ Self employed ☐ Invalidity/sickness ☐ Other, specify _____
☐ Not known

Living arrangements (tick one only)

- ☐ Alone ☐ Self and children ☐ No fixed abode
☐ With partner ☐ With parent(s) ☐ Other, specify _____
☐ With partner & children ☐ With friend(s) ☐ Not known

Section II Details of death

Date of death: ____/____/____

Place of death: (tick one only)

- ☐ Home ☐ Residential premises (.e. hotel) ☐ In custody
☐ Place of work ☐ Street or highway ☐ Place of recreation/sport
☐ Treatment centre ☐ Educational establishment ☐ Hospital
☐ Other place, specify _____

Cause(s) of death (as given on the death certificate)

- 1(a) _____
 (b) _____
 (c) _____
 2 _____

The National Programme on Substance Abuse Deaths (np-SAD)

Toxicology

Please list drugs and alcohol present at post mortem (in order of importance, if known)

	Drug/alcohol	Level				Drug/alcohol	Level		
		B	T	U			B	T	U
1					4				
2					5				
3					6				

B = Blood; T = Tissues; U = Urine

Section III Coroner's verdict

Section IV Background information

Recent history of drug use and other relevant information: e.g. evidence of injecting drug use; evidence of 'crack' use; recently released from prison or discharged from treatment programme; psychiatric history; known to alcohol/drug services; length of use; poly-substance user; known health problems associated with substance misuse; last 24 hours of life (if known), time police summoned, any drugs paraphernalia, etc.:

Was the deceased on prescribed psychoactive medication? ☐ Yes ☐ No ☐ Not known

If yes, please list drugs:

1 _____	2 _____
3 _____	4 _____
5 _____	6 _____

Was the deceased a drug addict or known drug abuser? ☐ Yes ☐ No ☐ Not known

Section V Coroner's details

Coroner's name: _____ Date inquest completed: ____/____/____

Jurisdiction: _____ Office: _____

Signature: _____ Date: ____/____/____

Please send completed form to:

National Programme on Substance Abuse Deaths (np-SAD)
International Centre for Drug Policy
St George's, University of London
FREEPOST LON 10141,
London SW17 0BR

For general enquiries: Tel 020 8725 2623 or Fax 020 8266 6494

Appendix 3: Feedback form

Please copy this sheet and return to:

np-SAD, International Centre for Drug Policy, St. George's, University of London, Cranmer Terrace, London, SW17 0RE.

FEEDBACK FORM

1. Please tick the appropriate box on the following features of this report:

	Very useful	Useful	Not useful
Demography	☐	☐	☐
Drug-related death rates	☐	☐	☐
Location of death	☐	☐	☐
Underlying causes	☐	☐	☐
Substances implicated in death	☐	☐	☐
Prescribed psychoactive medication	☐	☐	☐
Associated risks	☐	☐	☐
Drug abuse vs. non-drug abuse	☐	☐	☐

2. What other aspects relating to Substance Abuse Deaths would you like to see reported in future monographs?

- a.
- b.
- c.

3. Please make any further comments on improving the content or layout of the report:

4. What type of organization do you represent (please tick)

- | | | | |
|----------------------------------|--------------------------|--------------------------------|--------------------------|
| Coroner/Procurator Fiscal Office | ☐ | Drug (and Alcohol) Action Team | ☐ |
| Drug/alcohol treatment service | ☐ | Other (specify) | |

5. Would you like to receive future monographs in the series? YES ☐ NO ☐

Name:
Position

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